



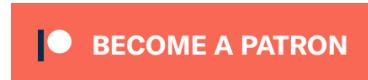
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THE TRAINING OF AN INFANTRY BATTALION

MILITARY TRAINING PAMPHLET

No. 37

1940

*Prepared under the direction of
The Chief of the Imperial General Staff*

THE WAR OFFICE,

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MILITARY TRAINING PAMPHLET No. 37

THE TRAINING OF AN INFANTRY BATTALION

The object of the pamphlet

The object of this pamphlet is to assist battalion and company commanders in the training of their commands. It does not replace Training Regulations or Infantry Training, neither does it contain any new doctrine; it is rather a summary of the existing instructions with regard to training in so far as they affect an infantry battalion, with suggestions for the application of those instructions (by an officer who has been faced with the problem himself).

It is not intended that this application of the instructions should be followed slavishly or that the initiative of officers responsible for training should be in any way cramped. Variation and originality in methods of instruction should be encouraged provided that they produce good results.

CHAPTER I

INDIVIDUAL TRAINING

1. The organization of individual training

1. The allotment of periods to individual and collective training will depend generally on the time available, the facilities which exist and the circumstances in which formations are placed.

It is essential that individual training should be completed before collective training begins. If individual training is well organized, the periods devoted to section, platoon, company and battalion training can be shortened with the least detriment to training as a whole.

No commander will ever be satisfied that his unit is perfectly trained in all respects, and there will always be points in which improvement will be possible. There will never be time for all the training which a commander would like to carry out, and it is essential therefore that no time or opportunity should be wasted; and secondly, that commanders should be able to distinguish between matters of major and of less importance.

Training, to be of value, must be well and systematically organized. The organization will include the following:—

- i. *Programmes.* Progressive instruction is ensured only by means of programmes, which require careful consideration in their preparation.
- ii. *The training of instructors*
- iii. *The classification of those under instruction*
- iv. *The provision of the necessary ground and equipment*

2. *The battalion programme*

Battalion commanders should be given well in advance a forecast of the time available for training; the location of such training and details of special facilities such as ranges, field firing areas and areas for digging which will be available. The forecast should also include details of guards and other duties to be found by the battalion and should be confirmed as early as possible by a definite programme.

With this information, the battalion commander will prepare his own forecasts and programme covering the period, to enable his company commanders to arrange their own details of instruction. In his programme he will include:—

- i. Periods during which each company will be made available for weapon training, firing their range courses, other individual training and, later, section, platoon and company training.
- ii. Periods during which companies will be required for duties, guards, etc., and will not be fully available for training, with an estimate of their commitments.
- iii. Details of battalion cadre courses for the training of instructors and of battalion courses for the training of N.C.Os. as leaders.
- iv. Details of officer training, including T.Es.W.T. lectures, etc.
- v. Details of specialist training (see Sec. 2) to be carried out under battalion arrangements.
- vi. Details of officers and N.C.Os. selected to attend courses at army schools of instruction and the dates of the courses. The vacancies should be allotted so as to ensure as far as possible that the personnel will be present when their company will be training, and to fit in with cadre courses, etc.
- vii. Details of special activities (ceremonial parades, inspections, etc.) which will affect the companies' training programmes.

3. The company programme

The company commander will thus be faced with two types of period; when his company is "struck off" all duties and his whole company is available for training; and when for one reason or another only a proportion, perhaps very small, will be available.

The latter type of period can easily be wasted and its value will depend on the organizing ability and energy of the company commander. The work carried out will depend on the number of men available, and it should be arranged as far as possible that those for training on any particular day should be of the same category. For example, on one occasion, men backward in a particular subject may be made available for training; on another occasion, men on the promotion roll and young N.C.O.s. may be taken on a T.E.W.T.; on another intelligent men may be given training as orderlies. If a few men only of mixed categories are available an advanced fieldcraft exercise (*vide* Military Training Pamphlet No. 33, Sec. 22) may be carried out. The essential is that preparations should have been made beforehand to deal with any variation of numbers or categories.

During these periods the preparation of programmes and the training of instructors should be put in hand so that all will be ready when the whole company is struck off for training.

In preparing his programme, the company commander will first consider:—

The C.O.'s policy

The time available. This will depend on the number of working days, whether the instruction is to be continuous or interrupted, the hours of work each day, the time taken to reach places of training, and other commitments during the period.

The time required. A list must be made of the subjects to be taught, and the time required for each which will depend on the standard of those under instruction.

The instructors available. The number of instructors available for each group of subjects must be worked out (see para. 4 below).

Equipment, stores and ground. If there is a shortage of training equipment or suitable ground they must be used by squads in succession and work must be staggered.

Consideration of the above data will inevitably lead to some curtailment and adjustment to his list of subjects and

lessons. The remaining subjects and lessons should then be arranged in logical sequence.

The lessons in each subject should be listed, given serial numbers, and the lists issued to instructors showing:—

Subject.

Lesson Serial No.

Detail.

Time required.

Stores required.

Remarks.

A detailed weekly programme will be required for issue one week in advance to enable the instructors to prepare their work, and this should show:—

Date.

Time.

Squad No.

Subject.

Lesson No.

Place of work.

Instructor.

Remarks.

Initially, however, a bulk allotment of subjects to weeks is preferable to a complete detailed programme for the whole period as modifications are almost certain to be necessary.

The following are a few general hints to be considered in preparing weekly programmes:—

- i. Variation of subjects maintains interest.
- ii. Alternate easy and difficult periods.
- iii. Alternate sedentary and "action" periods.
- iv. Periods of instruction should be short, approximately 20 minutes where possible, and never exceeding 45 minutes.
- v. Start the day with a vigorous subject.
- vi. Allow time for movement to and from places of work, and for breaks.
- vii. Make provision for the equipment and apparatus required for each period to be ready when the period begins. This may be done by the company storeman or some specially detailed N.C.O. working under the C.S.M. Whoever is responsible should be provided with copies of all programmes and informed of all alterations.

4. Squadding for instruction

Men should be squadded for instruction during individual training in accordance with their ability and knowledge. This will generally render it impossible for men to be squadded by sections or even by platoons. It is not only a waste of time but also detrimental to keenness to give elementary instruction to men who are already efficient in a subject. Keen and intelligent men should be pushed rapidly through the elementary work and given more advanced instruction.

The number of men who can be taught efficiently by one instructor is limited, and though it varies according to the subject taught, the standard of the students and the ability of the instructor, a squad must never exceed 12 and should, if possible, be 6 or 7.

5. Records of efficiency

For squadding to be carried out on sound lines, company and platoon commanders should have available records of the training carried out by each man, his standard of knowledge in each subject, and a record of his character (reliability, powers of leadership, intelligence). His trade before enlistment should also be recorded.

As changes in command will inevitably occur, these records must be kept in writing either by platoon or company commanders, (one alternative is that training records should be kept by platoon commanders and character records on a company basis). The training records should show the lessons to be learnt by each individual and the standard of efficiency achieved in each.

This data will be based on the report accompanying each man from the recruit training unit and on tests carried out after his arrival in the battalion. These tests should be on a battalion system, though some may be carried out by companies. Each squad as a whole should be tested in drill, T.O.E.T. should be carried out and results compared with records of actual shooting; men should also be tested in anti-gas training, fieldcraft, map reading and other subjects.

2. Categories to be trained

1. Individual training in a battalion may be divided into the following categories :—

- i. Further training of the recruit.
- ii. Exercising the trained man.
- iii. Specialist training.
- iv. Training of instructors.
- v. Training of leaders.
- vi. Training of officers.

2. *Further training of the recruit*

The object of this training is to produce a man who is disciplined, physically fit, skilled with his weapons, expert at fieldcraft, and who is intelligent, adaptable and capable of acting on his own initiative.

The initial training of the man as an individual is carried out at a recruit training establishment. On joining his battalion he will have received, in many cases, the minimum training necessary for him to take his place in the ranks; other men more intelligent and adaptable will have attained a higher standard.

In all cases a period of further individual training will be available—for the backward man to improve his standard and for the advanced man to give him further instruction as a specialist or leader. It must be remembered that a thoroughly efficient private is one who is capable of commanding a section.

Men on arrival must be tested and their standard assessed (see Sec. 1, 5). They should then be squadded in accordance with their capabilities. The more intelligent men should be divided between those to be trained as leaders or as specialists, while the backward men should be squadded in accordance with the subjects in which they are particularly backward.

3. *Exercising the trained man*

At intervals, the initial training of the soldier should be checked and such training given as is necessary to bring him up to date and regain his efficiency. The period of training required will vary with the capability and service of each individual.

For these men, the methods adopted for recruit instruction should be modified, the system employed being that of testing and practising the soldier rather than teaching him. Men who have proved themselves efficient should not carry out unnecessary repetitions but should be instructed in more advanced subjects or as specialists or N.C.Os.

4. *Syllabus for the private soldier*

The syllabus for the private soldier is given in Infantry Training 1937, Sec. 11.

5. *The training of specialists*

Each battalion requires a large number of specialists (signallers, intelligence section, transport drivers, pioneers, police, clerks, orderlies, cooks, sanitary men, stretcher bearers, storemen, mess staff, etc., and in addition men for the mortar and carrier platoons and snipers). A battalion commander

should aim in principle at training not only the approved establishment but also a reserve of 100 per cent.

A proportion of the specialists required may reach units from training establishments with some knowledge of their duties, for example, signallers and men for the mortar platoon may arrive technically proficient. Other specialists such as police and clerks may have to be given their entire specialist training in their units.

In most cases a certain amount can be done by a form of apprenticeship training, but this must be organized if it is to produce the desired results. The mere attachment of men to offices, cookhouses and pioneer shops is unlikely, unless the training is organized and watched, to produce more than inkpot fillers, potato peelers and tool holders. Apprenticeship training should therefore always include periodical tests of efficiency, a N.C.O. should be made personally responsible for the instruction under a nominated officer and, where feasible, programmes of training should be drawn up.

In addition to apprenticeship training, special classes should be organized for all types of specialists, as indicated in Infantry Training 1937, Secs. 12 and 15. The following points are not dealt with in Infantry Training:—

i. *Transport drivers.* The syllabus for transport personnel will include: mechanism, driving, care and maintenance, map reading (the standard must be high), tactical driving, driving in convoy, camouflage and concealment.

Particular attention will be devoted to training in driving by night on roads and across country both with reduced lighting and with no lights. On a dark night driving without lights is difficult; aids such as white lines will not be available in war, and consequently recourse must be had to every aid which can be contrived, e.g. dropping the wind-screen, a man sitting on the front wing to get a more forward view, or a square of white material attached temporarily to the rear of each vehicle.

Suggestions for training in tactical driving will be found in Sec. 15, which deals particularly with the training of the carrier platoon.

Men should be able to carry out simple tasks of maintenance and inspection at night.

ii. *Police.* Training must include traffic control, road reconnaissance and reports, duties with regard to discipline, powers of arrest, etc., duties at a stragglers' post, and routine police duties in barracks, camps and bivouacs.

- iii. *Clerks.* Clerks must be taught their duties in the field, and must know the sequence of messages and operation orders, official abbreviations, the routine of a field office, how to record the receipt and despatch of correspondence, and the filing system. Clerks should be encouraged to learn shorthand, typewriting and accountancy.
- iv. *Cooks.* All cooks must be trained to a standard which would enable them to work on their own as caterers for a detachment.
- v. *Sanitary personnel.* These men must know not only how to carry out their various tasks, but also the reason for them. They should also have a knowledge of water duties.
- vi. *Stretcher bearers.* Courses of instruction should be held by the medical officer of the unit. The existence of a squad of determined and capable stretcher bearers has a great effect on the moral of a unit in battle, and they have a great record of bravery and devotion to duty in the Great War of 1914-1918.

6. *The training of instructors*

All officers and N.C.Os. must be capable of training their men in everyday duties such as drill, physical training (for trained soldiers), weapon and anti-gas training and fieldcraft. These basic subjects should not be left to a few specialists.

A proportion of officers and N.C.Os. from each unit will attend courses at Army schools of instruction. One of the main objects of these courses is to provide a nucleus of personnel who are capable of training a further supply of instructors on returning to their units. Students for these courses should therefore be selected from those who have already shown that they are likely to develop into good instructors and already have a good basic knowledge of the subject to be taught. Army schools are not intended to give this elementary instruction, but to train picked men *as instructors* of others. In most cases entrance examinations are held at Army schools; these examinations are to ensure that those attending have sufficient knowledge to prevent them lowering the whole standard of the course and holding back others.

Battalion commanders should keep a roster of waiting men for each type of course, ready to accept "snap vacancies." As each officer or man is placed on the roster, he himself, his company commander and the specialist officer

concerned should be informed and a date given by which he must be prepared to "pass in" should a vacancy become available.

On return from the course, use should be made of the knowledge he has gained. He should be questioned by other experts to find out any changes in policy or methods, so that other instructors may be kept up to date, and should be given an early opportunity of instructing in the subject himself, as this is one of the best means of becoming a master of the subject and fixing it in his mind.

Unit cadres should be formed to ensure that the knowledge gained is passed on. Unless this is done, much valuable training is wasted and the problem of providing for the ever-increasing demand for qualified instructors is made more difficult than it need be.

Those trained in unit cadres must be taught to be not merely masters of the subject but also how to instruct in it.

7. The training of leaders and N.C.Os.

The training of junior leaders as such is a special problem. Quite apart from the cadre courses run to produce instructors, all leaders must be given special training before they are called upon to exercise command. They cannot acquire this while they are engaged in teaching others, and it is manifestly unfair to call upon a man to command others unless he has been given the necessary instruction.

Short courses under battalion and company arrangements should be held.

A list of subjects to be included is given in Infantry Training, 1937, Sec. 13.

8. The training of officers

Although officers will have passed through an officers' training establishment before joining their units, their training must not be accepted as being complete. An officer continues to learn throughout his service and his efficiency is largely a matter of experience, based on ability to compare the solutions of a large number of situations. A regular course of training for officers of all ranks must be instituted in all battalions, to cover the subjects given in Infantry Training, 1937, Sec. 13. In addition, instruction should be given in administration to cover:—

- i. *The welfare of their men.* The prevention of illness and maintenance of efficiency: exercise, rest, sanitation, baths, cooking, clothes, fitting of equipment, water supply, the distribution of meals.

- ii. *Discipline in the unit.* Standing orders, King's Regulations, powers of arrest and punishment, etc.
- iii. *Supply in the field.* Rations, ammunition and petrol.
- iv. *Pay duties* at home and on service.
- v. *Replacement of clothing and equipment.* To include the inspection of kit and equipment.
- vi. *M.T.* Duties in respect of maintenance and inspection. The system of repair and replacement.
- vii. *Salvage*
- viii. *Wounded.* First aid and evacuation.
- ix. *Billeting.* At home and on service; duties of a billeting officer; passive air defence.
- x. *Camps and bivouacs*
- xi. *Censorship*
- xii. *Hygiene*
- xiii. *Courts of inquiry*
- xiv. *Courts martial*

Tactical instruction should take the form of tutorial discussions (see Sec. 21, 3), T.Es.W.T. (see Sec. 29), and exercises. Throughout the individual training season, T.Es.W.T. should be held at least once a week; they will vary in type and may sometimes be replaced by a reconnaissance and report.

It is impossible to represent real war conditions in training and senior officers with war experience should make it their particular responsibility to educate their juniors in the impressions that will be experienced and the reactions to be expected when under fire. Officers should be encouraged to read books dealing with war experience, and to note particularly situations with which officers were faced and the frequency with which the unexpected happens. A report on the lessons of the last war includes the following:—

“ I have personally observed the extraordinarily different results obtained by units attacking side by side. Success was usually attributed to luck or a poor enemy, while failure attracted attention by reason of its clumsy and bloody struggle. But a careful study would probably reveal that better methods and more intelligent leadership were the reasons for the success that seemed so easy. It is these methods that best repay study.”

The most difficult form of command is fighting deployed when the situation is constantly changing, information is hard to obtain, and immediate decisions have to be made. A mere study of the text books alone will never prepare an officer to do the right things on such occasions which generally occur at the critical and decisive moment of battle.

Administrative subjects may be taught by tutorial discussions, outdoor and indoor exercises and by demonstration. Visits and attachments to other arms should also be arranged.

9. *Training in the use of ground*

The proper use of ground is the most important factor in all tactical operations; constant study is required to appreciate its influence on the varying stages of battle.

Too often during training officers may be seen with heads down studying a map when their heads should be up looking at the ground itself.

No map reading, however good, can adequately take the place of ground reconnaissance. In issuing orders the map must be used only as a subsidiary, and objectives, etc., must, wherever possible, be pointed out on the ground. Map references must not be given to those who have no maps.

Commanders must know what to look for when studying ground; thus in the attack they must look for likely enemy localities, O.Ps. and tank obstacles; important tactical features the capture of which will upset the enemy defence plan; the best way of avoiding enemy fire, i.e. of obtaining defilade; ground favourable for tanks; ground suitable for observation; concealed forming-up places; aids for keeping direction; ground favourable for consolidation and flank defence.

In the defence ground must be considered with a view to assessing tank obstacles, artillery observation, concealment and the possibility of surprise, prevention of enemy observation and facilities for covered communication.

Training in the use of ground begins with fieldcraft training and must continue right through the training of officers and other ranks. Ground is a vital factor in every tactical appreciation.

Exercises must be arranged with the special object of teaching the use of ground to all commanders. For example, syndicates of officers and N.C.Os. may be given the task of reconnoitring an area to pick out a defensive position which is as near perfect as possible (this should be done without any basic tactical scheme so that the position may face in any direction, and the area should be as large as possible with regard to the time available); subsequently each syndicate will show its selected ground to the others and the comparative advantages will be discussed.

Another exercise is to give an officer an area (about one square mile to start with) and to call for a description of the country with special reference to points of tactical importance.

CHAPTER II

COLLECTIVE TRAINING—GENERAL

3. The object of collective training

1. The objects of collective training are :—

- i. *Leadership.* To afford leaders opportunities of exercising command in the field under warlike conditions. Although under peace conditions the stress and danger of war can never be fully portrayed, collective training affords a wholesome check on theoretical training, and gives some experience as regards the effect of fatigue, the incidence of friction, the factors of time and space, the "fog of war" and uncertainties due to lack of information, ambiguous orders, and messages which are vague, go astray or are received too late.
- ii. *Fighting spirit.* To weld individuals into sub-units and units with a common pride, loyalty and fighting spirit. This fighting spirit is founded primarily on the personality of the unit commander, on his resolute belief in himself, his sympathy, determination and sense of humour, on discipline and on the confidence which the men show in their leaders and their weapons.
- iii. *Flexibility and control.* To enable the unit to deploy rapidly and, when deployed, to carry out the will of its commander, to execute his plans and to manoeuvre without fuss or loss of control.
- iv. *Co-operation.* To practice units and sub-units to co-operate with each other and with other arms. To produce a trained team rather than a team of individuals.
- v. *Organization.* To exercise and perfect the organization for command to ensure that information and orders are communicated quickly and accurately.
- vi. *Administration.* To ensure that the unit is administered in such a way that it can take the field as fit as possible for battle in every respect both as regards personnel and equipment, and that it can be administratively supported in the field with everything necessary for its fighting and maintenance.

4. Preparation

1. The success of collective training will depend very largely on the following :—

2. Training must be systematic and progressive. Before company training is undertaken, sections and platoons should have reached a satisfactory standard, company commanders should have been instructed by means of T.Es.W.T, and umpires should be trained. If time has to be devoted during company training to the correction of points of elementary training or to the teaching of section leadership, the object for which company training is designed will fail proportionately to be achieved. Similarly, before battalion training, companies should have completed their own collective training, and battalion headquarter training should have been carried out. The old-fashioned "field day" undertaken by partly trained units has little more than a picnic value.

3. Interest must be maintained. During a tactical exercise it is the duty of every commander to ensure that those under him have an accurate picture of the tactical situation. Without this, interest will soon lag and those under training will have no basis on which to use their initiative. A man who is kept in the dark will soon lose the use of his eyes. Schemes must therefore be explained in detail before each exercise, and each fresh development as the exercise proceeds.

4. Thorough preparation is essential. The success of any scheme will be in proportion to the care with which it has been prepared.

In the case of a unit on active service being moved to an area for rest and training, arrangements should be made if possible for officers responsible for training to visit the area beforehand to prepare schemes and to make other preliminary arrangements. Much help in this respect can be given by area commanders.

5. Units must be organized. One of the objects of collective training is to produce a unit working with the efficiency of a good machine; for this to be possible, each piece of the mechanism must fit and must be in its correct place. In a unit this means that commanders, leaders, specialists and men with special duties must be appointed, their replacements trained and a defined procedure laid down for all routine duties. Transfers after collective training should be avoided, for during training the men will have become accustomed to working together (it is a similar process to "running in" a car), while commanders will have learnt much regarding the individuality of those under them: to one it may be necessary

to stress the need for caution, while another may tend to be over-cautious and consequently too slow.

6. Responsibility for training. As far as possible the commander of each sub-unit and unit should be responsible for the training of his command; but his superiors must not forego their functions of guidance and control. They should exercise a general supervision which, without curbing initiative or taking the form of interference, should ensure that training is always on sound lines. They should have little to do in this respect if they have previously done their own duty in laying down a doctrine by means of T.Es.W.T. and conferences before collective training begins.

Harsh criticism of a subordinate in front of his command must be avoided, and whenever possible criticism of points of detail should reach the men through the intermediary of their own sub-unit commander.

The second in command of the battalion should be the chief training assistant of the commanding officer. In war, he will command the battalion if the commanding officer becomes a casualty, and it is essential therefore that he should be capable of command and conversant with the training efficiency of each part of the battalion. He has in addition certain administrative duties, but if he is fit for his appointment and his office is well organized, he will find ample time available for tactical training.

5. The battalion collective training programme

1. As early as possible, battalion commanders should prepare a programme for the whole of the collective training period, to enable company commanders to arrange their own detailed programmes. The information given should include the dates between which companies will be struck off from all duties for training; the dates when they will be required to find special duties, guards, etc., and an estimate of those requirements; the allotment of training areas; the date battalion training begins; and any special information such as inspection dates, company and inter-company schemes to be set and directed by the commanding officer, and details of co-operation of carrier and mortar platoons with companies.

2. Periods of the same type of training without a break should not be too long, or staleness will ensue. There must be gaps for the digestion of past lessons and the preparation of fresh schemes to correct weaknesses which have been noted. As a general rule an unbroken period of company or battalion training should not exceed three weeks.

3. Everything possible should be done to ensure that a company struck off for training is available complete, and that officers and men are not taken for courses and duties.

4. Provision must be made for training battalion headquarters and the headquarter company in addition to rifle companies. This training must be completed before battalion training begins. The training of headquarters (Sec. 6) will involve a number of skeleton exercises being carried out for which officers from rifle companies will be required; the dates and requirements for such exercises will be included in the programme so that company commanders may arrange accordingly.

5. The programme should also provide for the training of umpires (Sec. 37), to be completed before company collective training begins.

6. Where only a limited time is available for collective training, battalion commanders must concentrate on the type of operations which the unit is likely to be faced with on arrival in the theatre of war. In order to cover as many subjects as possible it may be necessary for him to lay down early which subjects will be given priority in company and battalion training respectively, and which subjects will be dealt with only by means of T.Es.W.T.

The battalion commander should hold a conference when he issues his training programme, to explain his policy and clear up any points which are in doubt.

6. Training of headquarters

1. The headquarters of every unit is its nerve centre, and on its working depends the efficient control and administration of the unit. Without an efficient headquarter organization no commander can effectively control his command.

No attempt should be made to carry out collective training until the headquarters have themselves been well organized and trained. The morale of a unit depends to a great extent on confidence in its commander and his headquarters, and to attempt to handle troops without the necessary headquarter training will have an adverse effect on fighting efficiency.

The efficiency of a headquarters depends on :—

i. *Organization.* The duties of each individual must be clearly defined, and there must be a recognized routine for carrying out every activity which lends itself to standardized procedure.

- ii. *Preliminary training.* Every man must receive individual training in his duties (signallers, clerks, police, intelligence section, orderlies, etc.). They must also be trained to work together in the sub-unit (signal platoon, protection platoon, intelligence section, etc.) to which they belong.
- iii. *Collective training.* Finally the headquarters must be trained to work efficiently as a whole.

2. *Organization*

In action the personnel of battalion headquarters and of the headquarter company will be divided as follows :—

- i. "*A*" echelon. This will consist of those essential for the exercise of command and for duties at the headquarters. Its strength should be kept to a minimum, and will vary according to circumstances, such as the type of operation, and the probable duration for which a position will be occupied. No fixed allotment can therefore be laid down. At the same time every headquarters should be so organized that those required for a particular operation can quickly be made available.

The following will always be included :—

Commanding officer.

Adjutant.

R.S.M.

Signallers (less those allotted to companies).

Intelligence section.

Two clerks.

This is the minimum required for mobile operations.

To this number may be added :—

Protection platoon (less portions employed with "*B*" echelon).

Pioneers.

Police.

Sanitary section.

Cooks.

Mess staff.

Some of these additional men will be of value if the headquarters has to be dug in. It should be remembered that the pioneers and sanitary men march and that no provision is made for their carriage on "*B*" echelon vehicles. Special arrangements must therefore be made if they are to be sent to "*B*" echelon, which may be some miles away.

If a proportion only of pioneers and sanitary men are to accompany headquarters their necessary tools and equipment may be carried in the protection platoon vehicles.

- ii. *With companies.* A proportion of signallers and stretcher bearers will be allotted to companies.
- iii. *Carrier and mortar platoons.* The action of these platoons will depend on the tactical situation.
- iv. "*B*" *echelon.* The remaining personnel, mainly administrative, will be at the position of "*B*" echelon transport.

3. *Battle procedure*

Each unit should have a clearly defined battle procedure for the establishment of its headquarters. (Infantry Training, Sec. 43.) This should provide for the decentralization of duties to take work off the shoulders of the commanding officer, adjutant and others who will already be fully employed on other tasks. Headquarters can often be established while the commander is away receiving orders, or engaged on reconnaissance. If this is done, he will return to find a headquarters ready to function immediately.

The following procedure is suggested as a basis, but may be modified in detail:—

- i. The commanding officer, having been given his task, will select, often from the map, the general area in which he wishes his headquarters to be. The factors influencing the selection of the site are laid down in Infantry Training, Sec. 43, 2. As soon as he is able to make this decision he will release his signal officer.
- ii. The signal officer will at once send a message to the battalion for the R.S.M. to bring forward "*A*" echelon of headquarters to a rendezvous in the selected area. He will then, after confirming, if necessary, with the brigade signal officer details of proposed brigade lines, carry out a detailed reconnaissance of the selected area and decide upon the actual site. Having informed the R.S.M. he will then carry on with his other signal duties.
- iii. The R.S.M. will then arrange the layout (see para. 5 below), in detail and will establish the headquarters on a fighting basis. He will issue orders to the protection platoon commander, who will dispose his platoon, less such portions as are with *B*. echelon, for the protection of headquarters; and he will

notify everyone of the alarm posts to be occupied in an emergency. He will issue orders to the police. As soon as possible he will report the position to brigade headquarters, signing the message himself if no officer is present.

As soon as headquarters have been organized, he will select an alternative site to be occupied in the event of gas shelling or other emergency. This should not be within 400 yards of the original site. He will make all arrangements for a move to this site at short notice and will ensure that a proportion of all groups know their positions at the new site. As soon as possible signals will lay a line to the alternative site.

4. Duties

The duties of each member of headquarters should be fully understood, and every key man should have his trained understudy.

- i. *The adjutant.* As the staff officer of the battalion, the adjutant, in addition to his routine duties, must be thoroughly trained in the rapid issue of orders and messages. He is responsible for office organization and for the training of his clerks.
- ii. *The intelligence officer.* The main duties of the intelligence officer are to be prepared at any time to give the latest information to his commanding officer or to official visitors; to interview visitors and to prevent the commanding officer being disturbed as far as possible; to make deductions on information received, and to call the attention of the commanding officer to any marked change in the situation.
He will act for the adjutant when required.
He will normally remain at headquarters. If he leaves it the intelligence serjeant will be left in charge and the adjutant informed.
- iii. *The signal officer.* The duties of the signal officer are laid down in Infantry Training, Sec. 44, and in Signal Training (All Arms). He should in addition be trained to carry out the duties of adjutant.
- iv. *The transport officer.* During a move the transport officer should be responsible for all traffic arrangements in the forward area, and it will be advisable at these times for the regimental police to work under his orders. They should, therefore, be trained

by him in traffic duties. He should make a rapid reconnaissance of roads and tracks in any new area occupied, and if roads are too narrow for two way traffic he should at once establish traffic circuits and inform all concerned. As it is unlikely that there will be sufficient police for posts at all road junctions, traffic signs should be carried for erection as necessary.

During an advance it may be necessary for the initial control of forward traffic in company areas to be under company commanders, but battalion control should be established before dark to allow for the movement of "B" echelon vehicles. Traffic circuits should be established and notified as early as possible. When the battalion is not moving, transport officer will be with the "B" echelon transport.

v. *The quartermaster.* The normal position of the quartermaster is with "B" echelon transport. It is essential that he should keep in close contact with battalion headquarters, which he should visit personally at least once daily. By keeping in touch also with brigade headquarters he will often be able to anticipate the requirements of the battalion. He will often be responsible for the billeting arrangements for the battalion when it moves out of action.

vi. *The R.S.M.* In addition to his duties in connection with the establishment of headquarters (see para. 3, iii, above), the R.S.M. will be responsible for the protective arrangements of headquarters. He will act as the "Q" representative at battalion headquarters, dealing with matters of ammunition, and he will be trained to act for the adjutant in an emergency.

vii. *Regimental police.* In addition to police duties in connection with traffic control, one or more police posts will be required at battalion headquarters. The duties of this post will include:—

Air discipline. To control movement, to prevent the formation of tracks, to ensure that covered routes are used, and to prevent unnecessary movement.

Traffic. To ensure that traffic does not accumulate at the entrance to headquarters. All cars and vehicles must be sent to the selected car park which will be under cover.

Visitors. The direction of visitors. They should know also the position of other headquarters in the neighbourhood.

Gas. The duties of gas sentry for headquarters.

Interference. They will prevent loitering near the signal office and at other places where the work of headquarters may be interrupted.

When headquarters are first established, police are unlikely to be available for these duties. The R.S.M. should therefore find the necessary personnel from sanitary men, batmen, and pioneers.

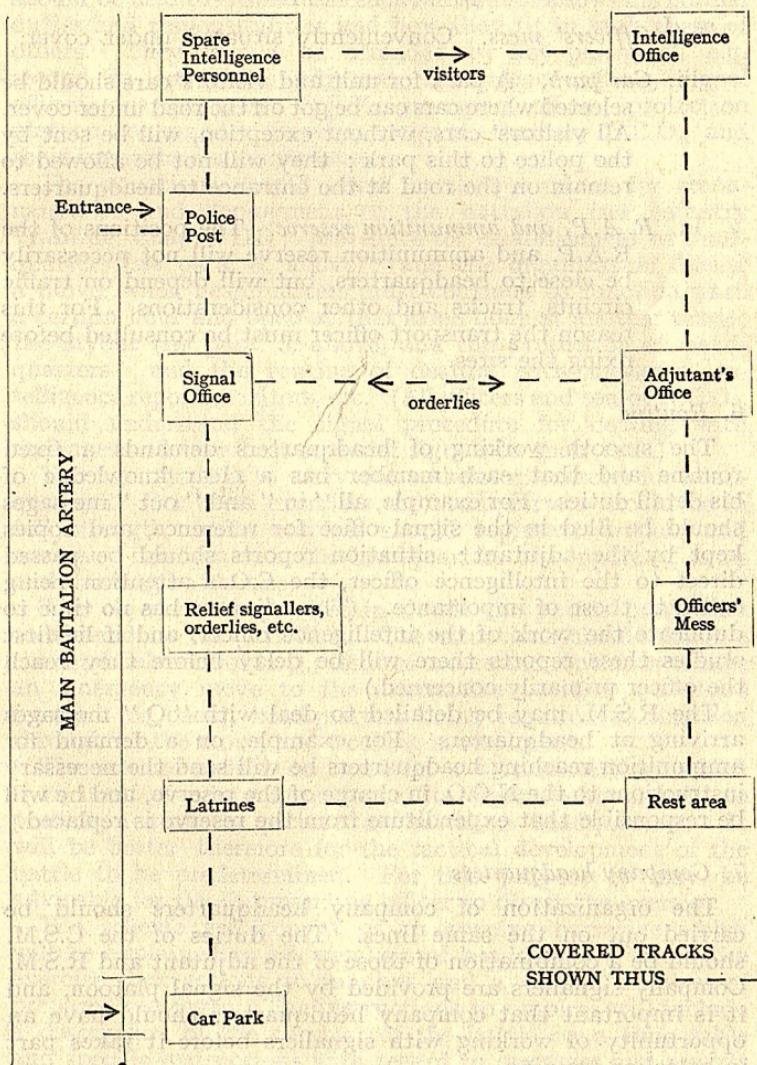
5. *The "layout" of headquarters*

The principles to be considered in disposing the various elements of battalion headquarters are the avoidance of congestion, the elimination of unnecessary movement, accessibility and the avoidance of interference. A sketch to illustrate these principles is given in diagram 1; this is diagrammatic only, and it must be adapted to suit the ground and cover available. The requirements of each position are:—

- i. *Signal office.* This should be near the entrance to the area and located so that it will not suffer from interference from visitors. It is most important that this office should work undisturbed, and only those actually on business should be allowed inside.
- ii. *Relief signallers and orderlies.* These should be under cover a sufficient distance from the signal office not to disturb its working but near enough to be readily available when required. It should be a suitable position for rest and the N.C.O. in charge should have a duty roster of orderlies and signallers.
- iii. *Adjutant's office.* This is the command post of the battalion and must be disturbed as little as possible. At the office will be the commanding officer, adjutant, R.S.M. and two clerks. It should be close to the signal and intelligence offices for easy access, but far enough away to avoid bunching and interference.
- iv. *Intelligence office.* This should be in a position to intercept visitors before they reach the commanding officer. At this office will be the intelligence officer and serjeant (when not posting or visiting groups, etc.) the map keeper and clerk. Spare personnel should be near enough to be readily available.

DIAGRAM I

LAYOUT OF BATTALION HEADQUARTERS



- v. *Details.* There will often be spare men in addition to pioneers and sanitary men. These must be located at a definite spot under cover and not allowed to scatter.
- vi. *Latrines.* These should be dug in a position which can be reached by a covered approach.
- vii. *Officers' mess.* Conveniently situated under cover.
- viii. *Car park.* A park for unit and visitors' cars should be selected where cars can be got off the road under cover. All visitors' cars, without exception, will be sent by the police to this park ; they will not be allowed to remain on the road at the entrance to headquarters.
- ix. *R.A.P. and ammunition reserve.* The positions of the R.A.P. and ammunition reserve will not necessarily be close to headquarters, but will depend on traffic circuits, tracks and other considerations. For this reason the transport officer must be consulted before fixing the sites.

6. Routine

The smooth working of headquarters demands a fixed routine and that each member has a clear knowledge of his detail duties. For example, all "in" and "out" messages should be filed in the signal office for reference, and copies kept by the adjutant ; situation reports should be passed direct to the intelligence officer, the C.O.'s attention being called to those of importance. (The adjutant has no time to duplicate the work of the intelligence officer, and if he first studies these reports there will be delay before they reach the officer primarily concerned.)

The R.S.M. may be detailed to deal with "Q" messages arriving at headquarters. For example, on a demand for ammunition reaching headquarters he will send the necessary instructions to the N.C.O. in charge of the reserve, and he will be responsible that expenditure from the reserve is replaced.

7. Company headquarters

The organization of company headquarters should be carried out on the same lines. The duties of the C.S.M. should be a combination of those of the adjutant and R.S.M. Company signallers are provided by the signal platoon, and it is important that company headquarters should have an opportunity of working with signallers before it takes part in battalion training.

8. Headquarter training

As soon as all parts of headquarters have been trained separately they must be trained to work together. Instruction may take the form of sand model demonstrations, T.Es.W.T. and skeleton exercises.

Demonstrations on the sand model, followed by T.Es.W.T., should be held to ensure that each individual knows his normal duties and responsibilities and how they fit in with those of others. They should be attended by key personnel, e.g. second in command, adjutant, intelligence officer, signal officer, quartermaster, R.S.M., transport officer, protection platoon commander, provost serjeant, sanitary N.C.O., and their immediate subordinates.

The situations should cover battle procedure for reconnaissance and deployment of the battalion (*see* Infantry Training, Chap. VIII); procedure for establishment of headquarters (*see* para. 3, above); and the organization during a move, when headquarters must continue to function until a certain hour and open at that same hour at another place; the layout (*see* para. 5, above) and the protection of headquarters; and the routine of dealing with messages, intelligence reports, visitors, etc. (All officers and senior N.C.O.s. should understand the signal procedure for dealing with messages and how best to assist signals in their task.)

The next stage is to carry out a skeleton exercise for headquarters. For these exercises the headquarters should be in full strength, while umpires should represent brigade and company headquarters, the headquarters of supporting arms and flanking battalions.

The object is to practise in detail the points previously considered in the T.E.W.T. The situations should involve the establishment of H.Q.; issue of orders and routine working; an emergency move to the alternative position; a move forward (or back), headquarters being required to function throughout the move, and working in respirators.

The scheme should be based on a tactical setting, which is in itself of minor importance, its object being merely to present a realistic picture at battalion headquarters. It will be better therefore for the tactical development of the battle to be predetermined. For this purpose it may be advisable for the commanding officer to direct the exercise.

The scheme will consist of an opening narrative which will be explained to all members of headquarters before the exercise, instructions to umpires and a certain number of prepared messages. The instructions to umpires will include a description of the conduct of the battle on a time table and specific instructions with regard to messages and reports

to be sent in at fixed times. Umpires must add to these messages from their own imagination in order to maintain a constant flow of messages at headquarters.

A skeleton enemy will produce realism for the practice of the intelligence section and for other purposes. Their tasks may be to fire blank, Verey lights, etc., to be reported by intelligence, (it may be necessary to supplement the fire by verbal description by umpires); and to represent enemy prisoners captured.

The outline of such a scheme is given in Appendix I.

CHAPTER III

COMPANY COLLECTIVE TRAINING

7. Organizing the company

1. From his record of individual training (see Sec. 1, 5) the company commander will, before collective training begins, organize his company on a war footing. This will involve the appointment of all platoon serjeants and section commanders to their sub-units, the selection of specialists and the nomination of reserves. Once the organization has been completed it should be disturbed as little as possible by cross posting as it is important that each sub-unit should learn to work together. There should be the greatest possible decentralization of responsibility for training, discipline, clothing and equipment, to accustom junior leaders to the duties and responsibilities of command.

2. During company training, the whole company should take part in exercises including the C.Q.M.S., clerk and storeman; these men have duties in the field for which they must be given experience during training and, in addition, the C.Q.M.S. must be trained to take the place of the C.S.M. should the latter become a casualty. In a well administered battalion their attendance at most exercises should be possible, but it will depend largely on the co-ordination of battalion administrative duties (e.g. fitting clothing) with the company programme.

8. Programmes

1. The battalion programme will give company commanders two types of period. In one type the whole company will be available, and in the other a portion only, which will often vary and be impossible to forecast. Although it will probably be impossible for this latter period to prepare any detailed programme, the time must not be wasted. There will seldom be a day on which no men are available and there must be an elastic programme with items prepared which can be put into action at short notice. They will vary according to the class of men available. For example:—

For backward men. If proper records of individual training efficiency have been kept, the subjects in which individuals are backward will be known, and the opportunity should be taken to give them further instruction.

For advanced men. Men whose standard of training is altogether satisfactory may be given an advanced fieldcraft

exercise of the type suggested in Military Training Pamphlet No. 33, Sec. 22, or may receive training as potential N.C.Os.

For N.C.Os. Company T.Es.W.T. should be prepared for the training of N.C.Os, who should also be instructed in umpiring (see Sec. 87) under company arrangements. Sand table schemes should also be prepared.

For specialists. Company headquarters and specialists (clerks, runners, etc.) should be trained in their individual duties and team work.

The success of the above training will depend largely on men being detailed for duties intelligently, so that men of the same category can be made available at the same time.

In addition the period should be used for the preparation of all schemes for the training that is to follow, and for an overhaul of the company organization.

2. Preliminary programme

Company commanders will divide the periods, when their companies are struck off duties, between section, platoon and company training. A list should be prepared of the various lessons it is desired to teach in each phase of training and the estimated time required for each lesson. An outline programme for the whole period will then be prepared which should give details such as :—

Date.

Training area available.

Lessons to be taught.

Method (i.e. type of exercise).

Time available for each lesson or scheme.

Officer responsible for preparation.

Date by which preparation must be completed.

This programme should be studied and approved by the commanding officer, who, while allowing his company commanders the fullest latitude for the assertion of their individuality and the introduction of originality of method, should ensure that the training is properly organized, and should give advice and assistance where necessary in the improvement of programmes and schemes.

As it is inevitable that platoon and company training will disclose faults in section leading and platoon training respectively, it will be advisable to allot a period for section training revision after the first week's platoon training, and a similar period in the company training period for platoon training revision.

3. Final programme

When the programme and schemes have been worked out in detail, modifications will be found necessary, leading to the production of the final programme which should give such details as :—

Date.

Subject of exercise.

Rendezvous.

Time.

Exercise directed by

Company commanded by (all officers should be given one or more opportunities to command the company).

Umpires (from other companies if possible).

Approximate time of end of scheme and administrative arrangements (e.g. if meals, or blankets are required).

Date, time and rendezvous for umpires' reconnaissance.

At least one scheme during company training should be prepared and directed by the commanding officer himself and he should arrange for exercises to be directed by the commander of another company, to enable the complete company under training to participate in the scheme.

9. Section and platoon training

1. Instructions with regard to section training will be found in Military Training Pamphlet No. 33 "Notes on the Conduct of Training in Fieldcraft and Elementary Tactics," and in Infantry Training, Sec. 14, 3.

Platoon training will begin as soon as sections have been trained, and should concentrate mainly on training the platoon to work at night and as a patrol. A platoon which is efficient in these two subjects will find little difficulty in carrying out other operations. Another advantage of patrol training is that schemes are simplified by the absence of imaginary flanking troops.

All platoon sergeants and full rank N.C.Os should be given an opportunity of command during platoon training.

The following items might be included in a platoon training programme :—

2. Demonstrations

Organization. A full strength platoon fully equipped should be drawn up to explain its organization, duties of individuals, means of intercommunication, ammunition available, etc.

Fire power. A range demonstration to show the fire power of a platoon and section, the characteristics of the various weapons, effect of firing through smoke, etc.

(These two demonstrations are described in Military Training Pamphlet No. 33.)

Tactical. "Wrong and right" rehearsed demonstrations may be applied to most subjects; examples of this method of teaching are given in Military Training Pamphlet No. 33, Secs. 28 (Patrols) and 30, 10 (Consolidation). Subjects which are particularly suitable for demonstrations are the conduct of a patrol (I.T., Sec. 52); the withdrawal of a rearguard platoon (I.T., Sec. 60, 7 and 8); demonstrating an orderly retirement and one in which control is lost, and the reasons for the difference; platoon in attack (I.T., Sec. 67), supported by its own weapons to show the value of a plan co-ordinating fire and manœuvre; and the platoon in defence (I.T., Sec. 77) to show the time and energy wasted by bad organization.

3. Drills

Transport. There must be a recognized procedure for packing the platoon truck, and for loading and unloading it, which must be understood by every man. Without this there will be chaos at the unloading point, time will be wasted, equipment will go astray, and there will be dangerous crowding round the vehicle.

Rapid deployment. (I.T., Sec. 28.) In the early stages of platoon training, rapid deployment should be practised as a means of protection against long range artillery and aircraft. This is the first simple lesson in controlled deployment, to teach sections to regulate their movements to those of the remainder of the platoon and in accordance with the wishes of the platoon commander, although outside the range of voice control.

Close order drill. Short periods of close order drill of approximately 15 minutes duration should be included occasionally at the conclusion of tactical training periods for the maintenance of smartness and discipline. Platoon inspections should be carried out daily and a high standard of turn-out insisted upon. Unless precautions are taken, there is a danger that discipline may get slack during collective training.

4. One-sided exercises

In the early stages of training, one-sided exercises should be carried out by phases (see Sec. 31). Two examples of platoon exercises are given in Military Training Pamphlet

No. 33, Secs. 36-37. The following are suitable subjects for one-sided exercises:—

Patrols. (I.T., Secs. 51-52.) Patrol schemes may include protective patrol action, such as a platoon acting as point of an advanced guard; as flank guard; to delay the enemy during a withdrawal; to act as covering party in defence; to protect troops forming up for a night attack, and similar tasks. They should deal with action both by day and night and in different types of country, including towns, villages and woods.

Attack. Attack exercises should be devised to teach the following among other lessons:—

Fire and manœuvre. (I.T., Sec. 67, 5.)

Infiltration. (I.T., Sec. 66, 4.)

Use of covered approaches.

Consolidation. (I.T., Sec. 71, 3.)

Attack on woods and in woods. (I.T., Sec. 88.)

Attack on villages. (I.T., Sec. 90.)

Mopping-up trenches. (Military Training Pamphlet No. 33. Sec. 30, 9.)

5. Once the elementary stages have been passed, patrol training should be "double-sided." Patrol should work against patrol or against observers and listeners. There should always be a real object to be attained, so that after the exercise it will be possible to assess success or failure. Platoon commanders should be encouraged to "take one another on," as at any other game, with another platoon commander as referee. These competitions may be carried out on the ground, or on a sand table or large scale map.

For some attack exercises, bayonet fighting dummies and sacks should be erected at the objective so that the final assault may be carried out realistically. "Sawdust" hand grenades will also add realism and umpires must be prepared with fireworks and smoke candles to represent any fire plan decided upon by the attacking troops. Some attacks should take place against trenches, and mopping up should be included.

Defence. Exercises should deal with all types of defence from the hastily occupied outpost position to the fully developed trench system. The following lessons should be included:—

How to obtain concealment of dispositions when extensive digging takes place. (I.T. Sec. 74, 8.)

The sequence of development. (I.T. Appendix IV.)

The organization of work. (I.T. Appendix IV.)

Concealment and camouflage, including the use of defiladed and reverse slope positions.

The siting of defences with reference to tank obstacles.

All round defence.

Fire organization, fixed lines and co-operation with flanking platoons.

Organization and routine in a defended locality (I.T.77, 3.)

The conduct of trench reliefs.

The counter-attack platoon.

Administrative routine (meals, sanitation, care of feet).

Each platoon should dig, develop and wire a platoon sector as described in Infantry Training, 1937, Appendix IV. The digging should be carried out as far as possible under service conditions and should consist of four four-hour tasks completed within a period of two days, at least one task being dug at night. The work should be completed with the platoon's normal establishment of tools. Subsequently the work should be inspected from the enemy point of view and, if possible, an aeroplane photograph should be obtained of it. From this reconnaissance, the fire plan for an enemy attack should be considered by the whole platoon to stress the importance of concealment, deception and surprise.

When completed, the position should be occupied for a whole night, during which fatigue parties should bring up rations, ammunition, etc., under war conditions, while at intervals "enemy" patrols should attempt to surprise the position.

Transport. The tactical handling of platoon transport should be included in all schemes in which the platoon truck would in war be under platoon control. There is a danger in peace training of assuming that the vehicle would reach forward positions which would be impossible in war; it cannot be treated like a caddy bag always available to supply fresh balls and the club required.

6. Two-sided exercises

The number of two-sided exercises should be limited until each platoon has received a thorough basic training. A few such exercises may then be carried out, set and directed by the company commander. They should be designed to give platoon commanders an opportunity of surprising, misleading, and outwitting their opponents. The following are examples:—

- i. Two opposing forces are facing each other covered by defence outposts. The outpost positions have not yet been wired. Two platoons represent adjoining outposts on one side, the opposing outpost position is flagged. The third platoon is in reserve behind the flagged position and is ordered to carry out a raid to obtain an identification. The outpost platoons

may send out patrols. Operations should begin approximately four hours before dark to allow for the necessary reconnaissance and observation, but the raiding platoon should not be allowed to see the outposts take up their positions. The raid may take place at any time between the beginning of the exercise and dawn.

ii. Two opposing forces have outpost positions 1,000 to 2,000 yards apart. A platoon from one side is ordered to establish a standing patrol at some point of tactical importance midway between the two outpost positions, and by a coincidence a platoon from the other side receives identical orders at the same time. Both are told that possession of the objective is essential for future operations and that if it is already held by the enemy too strongly to be captured, they must take the action most likely to facilitate a company attack, and report.

7. *Miscellaneous*

Field firing. (See S.A.T., Vol. I, Pamphlet 1, Sec. 3, paras. 29 *et seq.*) If possible, field firing should take place during platoon training, after similar exercises have been carried out without ball ammunition.

Manhandling of weapons. Fighting transport will often be unable to reach forward areas and in consequence weapons and ammunition must be manhandled. This must receive constant practice during training.

Marching. A report on the last war notes that even second rate troops can cut a fine figure when conditions are pleasant and easy, but it is when things are almost unendurable that the test really comes, and the first rate troops emerge."

Marching and march discipline (F.S.R., Vol. II, Sec. 22) should be practised with a view to the platoon being able to fight at the end of a day's march. An inter-platoon marching competition may be held during which situations will be included requiring immediate A.A. action or anti-gas precautions (men should be required to march for 20 minutes in their respirators). Marks should be given on a system which may include inspection tests (completeness of kit, fitting of equipment, state of boots and socks, turn out generally, state of feet after march, etc.), march discipline and rhythm, anti-gas efficiency (time test), A.A. discipline (fire control, use of cover, deployment, cover at halting places), handling and packing of the platoon truck.

Assault bridging. Each platoon should carry out training in bridge building, launching and maintenance and in the use of folding boat equipment, and also in the various tactical tasks required in river crossing operations. (I.T. Chap. XV.) Much of this training can be carried out even if no suitable river is available for training.

Anti-gas. Gas situations will be introduced frequently. Men must be able to carry out all duties, and officers and N.C.O.s. to command efficiently, when wearing respirators.

Night compass march. The platoon should be practised at moving across country by night. The training may be carried out as an inter-platoon competition on the lines described in Military Training Pamphlet No. 33, Sec. 29, 2.

10. Company training

1. When all platoons are fit to take their places in the company, the latter will be exercised as a whole. The principles are the same as for platoon training, demonstrations and one-sided exercises being followed by two-sided exercises, which will be greater in proportion than in platoon training. A company march (*see Sec. 11*) should be held if possible at the end of company training.

2. Some exercises will be set and directed by the commanding officer and by the commanders of other companies, the remainder will be prepared by the company commander himself and his officers. The battalion programme may well provide for each company commander to set and direct a two-sided exercise to be carried out by two other companies, and should lay down the subject with which each exercise will deal.

3. Umpires and enemy for one-sided exercises should, if possible, be provided by another company under battalion arrangements. It is better to strike companies off training in succession, than to attempt to train all companies at the same time, for under the latter arrangement each company must provide its own umpires and enemy and in consequence will operate as an incomplete unit.

4. Company training should be preceded by the training of company headquarters (*see Sec. 6, 7.*)

All officers and also the C.S.M. should be given opportunities to command the company during training; in addition, battalion arrangements should be made for the commanders of

the carrier and mortar platoons to command companies, as the experience will be invaluable in view of their main task of supporting companies. Arrangements should also be made, if possible, for the exchange of officers for exercises between infantry and artillery, tanks, and machine guns.

5. No uniform programme of company training can be laid down as the details must depend on the previous experience of the officers and men, the time available, distance from training areas and other factors. It will be found, however, that there will rarely be sufficient time to carry out all the training desired. Where time is limited it should in principle be economized in battalion and company rather than in section and platoon training.

During company training, exercises will be framed to deal with the various types of operations in which the company may be involved. The following syllabus includes the more important items, and is given in a rough progressive sequence.

Rapid deployment and movement in open formation (see I.T., Sec. 28).

Defence, where rapid occupation of a position is of importance (defence is included before attack to give a better picture when the problem of the attack is studied).

Attack against unco-ordinated resistance by infiltration and manoeuvre.

Night attacks.

Deliberate defence. This should include the preparation of the position and its occupation for a 24-hour period.

Withdrawals by day and night.

Night marches and advances (see I.T., Secs. 82 and 83).

Protection on the move.

Timed attacks in co-operation with tanks and artillery.

Outposts.

The passage of water obstacles.

Attacks in woods.

Attacks on villages.

Company raids.

Movements by M.T.

The above is merely an outline and there are many variations of each of the above subjects.

Arrangements should be made whenever possible for co-operation with tanks, machine guns, mortars and carriers in two-sided exercises, but other arms should be included in one-sided exercises designed to teach a definite lesson only if they are necessary to bring out the point of the lesson.

6. Specimen exercises for company training

The following are examples of demonstrations and exercises which may be included in company training.

i. Demonstration of fire organization in defence

A defensive position representing the F.D.Ls of three platoons may be laid out on a field firing range to show the principles of crossing fire, fixed lines, etc. The layout of the position should be inspected and explained by day, the demonstration itself taking place at night with the use of tracer. The position of section posts should be shown by lamps. First of all each section should fire individually to show its task, and later, on a defensive fire signal, all sections should fire. M.M.Gs should co-operate if possible.

ii. Quick defence

There are many examples in war of troops being called upon to take up defensive positions at very short notice, to fill a gap or to check a break through (e.g. "March, 1918," the retreat from Mons, etc.). The usual characteristics of such operations are scant and often incorrect information, a wide frontage, little time for reconnaissance, and troops, often already tired, hurried into position. Yet the task to be undertaken is generally a vital one. To rouse the company at night without warning and require it to prepare for battle in the dark, carry out a march over country which it does not know well, and occupy a position soon after dawn, is a good test of a company's morale and efficiency.

iii. Deliberate night attack

Instruction in the conduct of a night attack starting from a taped line should be the subject of a one-sided exercise. The actual attack should be preceded by a daylight rehearsal on different ground to demonstrate the principles. The first time the attack is carried out, it should be by phases to enable the company commander to check faults as they occur.

iv. Manoeuvre at night

On a light night, well trained and disciplined troops can carry out some manoeuvre at night; the ability to do so is the result of training, experience and practice. It is the best possible form of training in night sense and control. The situation envisaged may be that of a company sent forward after a successful preliminary night attack to seize some feature of tactical importance

some 500 yards beyond the first objective. In such a case the whole company is in fact acting as a large fighting patrol and fire and manœuvre may be attempted, the grenade and 2-inch mortar being of particular value. A battalion which can manœuvre at night will often save itself a costly operation by day.

v. *Timed attacks*

At least one exercise should deal with the action of a company in a timed attack with tanks and under an artillery barrage. This will provide useful problems in connection with reconnaissance, co-operation, reaching and forming up on the starting line (the attack should be staged at dawn if possible), dealing with enemy centres of resistance which come to life after the tanks or barrage have passed over them, and other points. The exercise may in addition deal with the consolidation of the objective.

vi. *Action of a reserve company in defence*

This forms a good basis for a test scheme as the task of the company can be kept in doubt until the last moment. The company commander must be prepared to occupy a defensive position and may also be required to counter attack at short notice. To be able to fulfil all his tasks the whole battalion area must be thoroughly reconnoitred, which may necessitate decentralization of reconnaissance. In the end, the task given the company may be something unexpected (e.g. the enemy has penetrated a battalion on the flank and it must occupy a defensive flank) and immediate action may be necessary when the bulk of the officers are away on reconnaissance.

vii. *Night advance*

A useful company or battalion exercise may be based on two forces facing each other, each with an open flank resting on difficult country. The task given is to move by night round the enemy flank and to take up a position at dawn to facilitate a frontal attack by the remainder of the force. (This exercise, carried out by a battalion over Dartmoor and involving movement on a dark night, avoiding bogs, crossing a stream and manhandling at the same time everything essential for fighting, proved most valuable training.) "Enemy" patrols should be provided.

11. Company marches

1. At the end of company training, each company should carry out a company march consisting of continuous training of about three days duration.

2. The principle objects of these marches are :—

For officers. To encourage initiative, resourcefulness and a sense of responsibility and to face them with practical problems of administration and the care of their men under more difficult conditions than in barracks, camps and billets.

For the men. To give practical experience in settling down quickly, in making the best of conditions as they find them and in conserving their energy over a period of more or less continuous action.

For the company as a whole. To give a real test of the fatigue and general conditions of campaigning over a longer period than the usual training exercise. If full use is made of the opportunity of getting his whole company under his sole control and administration, the company commander can do much during the period to cement the company *esprit de corps*.

Change of scene. It is possible in the time available to carry out operations in fresh country, which should differ as far as possible from that over which the troops are usually exercised.

3. All administrative arrangements should be made by company commanders concerned without assistance. They should be required to indent on battalion headquarters for all stores required for messing, bivouac and other purposes. They should make their own arrangements for the hire of bivouac grounds, sanitation and water.

4. The primary purpose of the march is to gain administrative and campaigning experience, the tactical aspect taking second place. The scheme should therefore involve a distance of 30 to 50 miles being covered in the three days and a fresh bivouac being occupied each night.

The tactical setting will add interest and reality and should aim at keeping the troops constantly on the alert and concerned for their own protection. A two-sided exercise for two or more companies will provide the greatest interest by reason of the competition involved. The general tactical lessons aimed at may well be "surprise" and "protection," each side trying to mystify, mislead and surprise the other.

Such a scheme should be prepared by the battalion commander and should provide for each company bivouacking

and operating separately. Arrangements should be made if possible for the carrier and mortar platoons to take part in these exercises. Longer narratives, with a greater appeal to the imagination than those for exercises designed to teach specific tactical lessons, will be permissible.

The following are examples in outline of schemes which fulfil the above requirements :—

5. *Scheme for two companies.* One company represents an enemy parachute unit dropped to carry out the demolition of a vital point A, after which it must seize aerodrome D where troop-carrying aircraft will land on the third day to pick it up. The second company stationed at E has the task of defending two vital points (A and B) some 20 miles apart, and of destroying any parachute force landed. The defending company does not know which objective the enemy has selected ; where he will land (C) ; or how he hopes to get away. The points A, B, C, D, and E should be suitably disposed 12 to 20 miles apart, and a period of time should be laid down during which a point must be held to complete its demolition.

6. *Scheme for three companies.* This is based on the problems of an army of occupation (e.g. the situation in South Africa prior to the first Boer War) which has to be dispersed for police duties, but must concentrate to fight. Two companies represent garrisons of the army of occupation situated about 30 miles apart (A and B). The third company, with the bulk of the carrier platoon or some other addition which makes it stronger than either of the other companies independently, represents an enemy commando which is constantly raiding the main road between A and B. The commando is based on a locality which it has prepared for defence at C about 10 miles from the road and equidistant from A and B. It is known that the commando intends to intercept a gold convoy which must travel from A to B within three days. All communications between A and B have been cut.

7. *Other exercises.* The above are merely examples of exercises which necessitate movement, alertness and reconnaissance. There is ample material on which other schemes can be based in the history of the small wars of the Empire and of the American Civil War and also in such books as "Tales from the Outposts" (Blackwood), "Robin Hood," etc. Interest will be created if the account of the action or the story on which the scheme has been based is read by and explained to the troops taking part before the exercise. No attempt should be made to adhere accurately to the historical parallel when carrying out the exercise.

CHAPTER IV

HEADQUARTER COMPANY TRAINING

12. General

In the first instance, men of the headquarter company will be trained as individuals in the same way as men of rifle companies, as in an emergency they may be required to fight as riflemen. In addition to their specialist training they should when possible be attached to rifle companies during collective training.

Training will be carried out by platoons under the supervision of the headquarter company commander, who must be generally responsible for their training and must pay particular attention to its tactical application. The platoon and group (i.e. intelligence section, etc.) commanders will thus be primarily responsible to their company commander for the preparation of training programmes and for technical training.

Battalion arrangements should be made for training a reserve of specialists. These men should be selected proportionately from rifle companies and attached to the headquarter company for periods when their own companies are not training.

The headquarter company commander should make all arrangements possible for the co-operation of his platoons in the training of rifle companies.

Many members of the headquarter company have important administrative duties in peace; it must not be forgotten, however, that they have duties of even greater importance in war for which they must be trained.

13. The signal platoon

1. The collective training of the signal platoon should be directed to ensure that all ranks, quite apart from technical efficiency, have a thorough understanding of the organization and tactical employment of the battalion and its sub-units. Suitable exercises will include:—

2. *H.Q. office routine.* This can be practised in barracks. The director may represent the adjutant's office near which a signal office should be formed. This office should control a number of terminals to brigade, companies, etc., all of which may have their other end in the director's office. Before the exercise takes place, the director should prepare a number of

messages based on a simple tactical setting. He will need two officers as assistants to represent company commanders, etc. on the telephone. On this skeleton a number of situations can be introduced requiring decisions by the signal staff; these might include:—

The routine of dealing with ordinary, priority and operations messages both in and out.

The filing of messages, records to be kept, etc.

Gas alarm.

Unnecessary use of signals.

Dangerous use of telephone (security).

Reporting of faults.

Method of carrying out reliefs.

Interference with signal office (casual visitors dropping in to telephone).

There are many other situations which can be devised with a little imagination.

3. *Signal exercises.* The next stage is to carry out a similar type of exercise on the ground with battalion and company headquarters represented in skeleton. Battalion and company headquarters should be situated where they would be in war and the scheme should involve the movement at least once of each headquarters. Some of these moves should be at night.

To be successful these exercises demand imagination and energy on the part of the director and the officers selected to represent the various headquarters.

The situations will include the breaking of cable by shell fire at a time when urgent messages must be got through, casualties to D.Rs. and orderlies when carrying important messages and similar incidents which actually occur in war and which unless dealt with immediately will disorganize the command and control of the unit. A commander must be able to feel that a message handed to signals will reach its destination in time, or, should that be impossible, that he will be informed in time to be able to modify his plan.

If R.A.F. co-operation can be arranged, the scheme should include messages to and from the air; alternatively the drill of communication with the air can be practised if an umpire paints the necessary picture of the action of the aircraft.

4. *Co-operation with companies.* Whenever a company is carrying out an exercise which is suitable for the purpose a group of signallers should be attached, working to a skeleton battalion headquarters. The signal officer should keep in close touch with company commanders for the arrangement of such co-operation.

14. The intelligence section

1. The training and duties of the intelligence section are dealt with in Infantry Training, Sec. 15 2 and 45. In addition to their individual training, instruction must be given to the section as a whole. This will include:—

i. *Intelligence schemes.* These will be carried out in the first place without other troops, to teach and practise the routine of establishing posts, sending messages, collating information, preparing intelligence reports, etc. Schemes should be on a simple tactical setting, situations being introduced by umpires describing to observers what they can see and hear. If the scheme is prepared with skill and imagination, the various reports from observers should enable the intelligence officer, after they have been pieced together, to make deductions and prepare a useful report for his commander.

These schemes may include, in addition, information from prisoners, captured documents, neighbouring formations and forward companies.

When carrying out liaison duties it must be remembered that a busy office will be more prepared to give all available information if they are getting information in return. Liaison personnel should therefore take with them the most up-to-date information from their unit, and conversely must collect all possible information from those visiting their own unit.

ii. *Co-operation with companies.* Much can be done by co-operating with company training if the intelligence section occupies "enemy" positions. This training will be to the mutual advantage of both section and companies; the section has actual troops on which to observe and report, while the company can be told after the exercise the extent to which their movements have been reported.

In addition, similar co-operation may be arranged with other battalions.

iii. *Reconnaissance schemes.* Exercises should be carried out based on the intelligence section being required to reconnoitre a route for a day or night move during which it will be responsible for guiding the battalion. Moves across country must be considered in addition to those by roads and tracks.

15. The mortar platoon

During collective training, the importance of speed into action should be constantly stressed. It is a weapon designed for quick support of infantry, and to carry out its role effectively it must "beat the artillery" on to the target by a considerable margin of time. To do this necessitates frequent movement and keeping in the closest touch with forward company commanders, and the most simple form of fire control. (Distant control must be avoided and should rarely be necessary.) To maintain close contact with company commanders, man-handling will frequently be necessary, the vehicle moving forward by bounds as opportunities present themselves. Mortar commanders must not wait for orders to come into action but must try to anticipate their tasks.

It is important during collective training that mortars should frequently co-operate with rifle companies, for only by this means can the training be made realistic and proper lessons taught.

16. The carrier platoon

1. Men for the carrier platoon must be carefully selected. The three men forming a carrier crew will often be working as an individual unit, and quick decisions will be necessary (they must think at 20 m.p.h. rather than 3 m.p.h.), since their safety and effect will depend on the good use of ground.

Men must therefore be quick and possess initiative, intelligence and resource and have a good eye for country. They must be imbued with dash and the offensive spirit.

To carry out their task efficiently they must have a thorough knowledge of the tactics of the rifle companies they will support.

2. *Training generally*

With a small team of three it is essential that all should be interchangeable.

Particular attention must be given during training to the following subjects :—

The use of ground.

Tactical driving.

Judging distance (and use of range-finder if available).

Indication and recognition.

Advanced handling.

Map reading.

Control by signals.

The use of smoke.

3. *Tactical driving*

The carrier commander will usually be responsible for selecting the general line of movement which should provide the greatest measure of concealment and security and avoid major obstacles. The driver will move on this general line, concentrating on the near view up to about 100 yards and picking the best ground for movement to avoid minor obstacles. The carrier commander will select halting positions.

When the detachment leaves the carrier, the carrier commander will select in general the area where the carrier is to be parked, the actual position of the carrier and its concealment being the duty of the driver.

4. *Training in ground*

Training should be carried out in the use of ground for ground action, during movement and for carrier action.

The methods of training in the use of ground for ground action are similar to those for any L.M.G. section, but in addition the action of the carrier when its crew is dismounting and the position it takes up during firing should be practised. Camouflage of vehicles should be included.

In the use of ground during movement the principles are similar to those which apply to an advancing rifleman. The object is to move from one point to another in such a way that the enemy are given the minimum opportunity of seeing or hitting whilst movement is taking place. The main difference is that the carrier has less to fear from ordinary rifle and M.G. fire, whilst on the other hand it is in *certain* respects less mobile than a walking soldier, e.g. a covered approach may be rendered impassable for a carrier by some obstacle which it cannot negotiate.

Drivers must therefore be taught to carry out rapid ground reconnaissance, and be trained to assess the effectiveness of obstacles from a distance.

The individual and section stalks described below are the best means of training in these tasks.

5. *The individual stalk*

One carrier is taken to point A and shown its next bound—point B.

The local situation is explained to the commander, and the enemy's fire is represented by rifle and L.M.Gs. firing blank. Anti-tank guns and rifles can be indicated by thunder flashes.

One or two observers are concealed in the vicinity of the enemy weapons and take notes of what they see.

One carrier at a time is sent over the course, the remainder being located under cover behind point A.

Points should be given for speed in reaching position B, the use made of ground, and concealment at dismounting point. The relative importance of these factors being determined by the local situation and task in hand.

6. *The section stalk*

This should be carried out on similar lines to the individual stalk with the following differences :—

The section commander should be made to give out his orders.

The ground may necessitate the section commander sending one carrier forward to examine a probable obstacle.

Note should be taken of the formations adopted by the section during movement.

Action of carriers on arrival at point B should be discussed and the question of ground in carrier action considered.

Points for discussion. The following are some points of importance which should be brought out in discussion :—

Use of speed when exposed to enemy's fire.

Crossing crests. Use of speed—don't "follow my leader"—often advisable to spread out and cross crest together, etc.

Value of triangular formation during movement. No two carriers in line at the same range.

Danger of bunching at a defile which may slow up the leading carrier. Other carriers should "stand off" until defile is clear of leading carrier.

The importance of "jinking."

Methods of misleading the enemy as to where the carriers are making for.

7. *Obstacles*

Carrier drivers must be taught to appreciate immediately what is and what is not an obstacle.

An obstacle course is a good method of teaching this. This should consist of shell holes—various types of weapon pits and trenches—wire—streams—marsh, etc.

The next stage is to carry out stalks over ground which contains various obstacles, some of which can be assessed from a distance or a map, whilst others will require close reconnaissance.

8. *Carrier action*

It is important to train men to select rapidly positions for carrier action. The carrier, because of its armour, does not necessarily require cover from bullets, although if this is available, so much the better. A steep scrub-covered crest will

afford excellent position for carrier action, whilst patches of gorse may allow a carrier to come into action unseen. Small isolated pieces of cover, e.g. a bush, will attract the enemy's fire and should normally be avoided. Where little cover is available the use of alternative positions is advisable.

A simple exercise to teach the rapid selection of positions for carrier action may be carried out on these lines:—

A carrier or carriers will be given an area of ground in which they are required to come into armoured action. The target which they are to engage will also be indicated. Observers will be posted in the target area to note movement, etc. When a carrier is in position it will open fire with blank, and an instructor should check whether the task can be carried out from the position occupied.

Camouflage exercise. A development of the carrier and section stalk.

One or more carriers to be sent to conceal themselves in a certain area. Remaining carriers to reconnoitre area.

Points to note:—

Use of cover and camouflage by hidden vehicles.

How do they give themselves away?

During advance points as for section stalk.

9. *Rear guard movement exercise*

Carriers manœuvring behind a ridge to deceive enemy as to strength of a rear guard position. Firstly bipod ground action, secondly carrier action (hull down position).

For this exercise, carriers should be required, in the first place, to manœuvre behind a ridge and fire from different positions, to deceive the enemy as to strength of the rear guard position. This will involve movement and use of ground, combined with ground action and occasionally with carrier action where there is suitable cover. As the enemy approaches, ground action will be discarded in favour of carrier action from hull down positions.

As an alternative rear guard action, on suitable ground carriers may be left in ambush in positions, concealed and camouflaged, holding their fire until the enemy is close enough to be so punished that his advance will be checked.

10. *Co-operation with companies*

Frequent opportunity should be given for carrier sections to co-operate with companies during their training as it is important that both should realize the powers and limitations of the other.

17. The pioneer platoon

In addition to the training of each individual in his technical duties, the pioneer platoon as a whole will be trained in the following :—

i. *Anti-gas duties*

Anti gas reconnaissance and marking.

The fencing off of small contaminated areas.

The laying of an improvised surface of timber, brush-wood, etc., on contaminated tracks within the battalion area.

Gas proofing of rooms.

Constructing and operating a field gas-cleansing centre.

ii. *Field defences*.

Work requiring some degree of trade skill or handiness with tools such as :—Revetting, loopholes for sentries and snipers, improving buildings for defence, simple weatherproof and splinter-proof shelters, construction of "concertinas" and "knife rests," gas-proofing of dug-outs, fixing gas curtains, repair and sharpening of tools.

iii. *Obstacles*

Removal of obstacles, the construction of A.F.V obstacles of a solid nature requiring the use of tools, conversion of partial into complete obstacles, the handling of ground bombs.

iv. *Camp services*

Temporary sanitary arrangements, covers for cooking (for protection against spray), etc.

18. The protection platoon

This platoon will receive training particularly in the protection of headquarters and transport from the air, the ground defence of headquarters (e.g., against parachute troops), and the provision of A.A. piquets to cover a move. They must also be capable of taking the place in emergency of a rifle platoon in defence.

19. Transport and administrative platoon

1. One or more administrative exercises should be held to give practical experience in the handling of transport and the system of supply in the field. These exercises should bring out such points as the grouping of unit transport, traffic

control in the forward area, the delivery of supplies, water, ammunition, etc., to forward troops and the use and meaning of the A.P., A.R.P., D.P., M.P., P.P., etc.

2. These exercises can conveniently be controlled and directed under brigade arrangements and run as skeleton exercises in so far as fighting troops are concerned, companies being represented only by headquarters. All available officers not taking part in the exercise should be conducted round the various points of interest, so that they may have a practical demonstration of what, for example, a petrol point looks like and how it is controlled and administered.

3. The scheme might be based on a brigade being sent forward at short notice from a rest area to occupy an outpost position. Ground should be chosen which will force the use of a single road, not a circuit, capable of single traffic only and with few if any passing points in the battalion area. This will necessitate the enforcement of traffic control under battalion arrangements.

4. Incidents, not necessarily in order, which may be included are : The brigading of unit "B" echelon transport ; brigade and battalion reconnaissance ; orders ; occupation of the position, transport being handled as though troops were present ; vehicles broken down and damaged beyond the limit of unit repair ; brigading of "A" echelon transport ; protection of transport ; ammunition to be dumped after dark ; enemy air reconnaissance and attack (R.A.F. to co-operate if possible and to photograph the area) ; replenishment of petrol ; drawing and distribution of supplies, and the delivery of rations to troops after dark.

As far as possible actual stores, rations, blankets, etc., should be handled. Tokens should be used for everything else.

CHAPTER V

BATTALION TRAINING

20. General

On the completion of company training, the battalion will be struck off all duties for battalion training. The objects of this training are to enable the commander to co-ordinate and direct the action of component parts of his battalion, to exercise the machinery of command, to give the senior officers of the battalion opportunities for more extensive command, and to practise the sub-units in mutual co-operation.

Before battalion training begins, it is essential that head-quarter training (*see Sec. 6*) and administrative training should have been carried out.

There should be a proportion of both one-sided and two-sided exercises. During the former, the skeleton enemy may be provided by another unit or, if this is not possible, by one of the companies or by a force composed by taking a few men from each company, which will leave the battalion commander with his normal number of sub-units to control. In the two-sided exercises one part of the battalion may fight the remainder under the direction of the commanding officer, thus giving two other regimental officers practice in command.

To give the commanding officer an opportunity of commanding his battalion, a proportion of these exercises should be set and directed by another officer.

During the latter part of battalion training, brigade commanders should make arrangements for co-operation with machine guns, tanks and artillery.

When possible, at the conclusion of battalion training an inter-battalion exercise of three or four days duration on the lines of the company march (*see Sec. 11*) should be arranged by the brigade commander.

The syllabus for battalion training should be similar to that for company training, except that it will be well to begin with an exercise specially designed to practise the battle procedure of the battalion for reconnaissance and movement into action (*see Appendix II*).

CHAPTER VI

THE TECHNIQUE OF INSTRUCTION

21. General

1. Notes on the principles of instruction will be found in many Army manuals, including Training Regulations (Sec. 4), Small Arms Training (Vol. I, Pamphlet 1, Sec. 1, 20), Notes for Instructors on the Principles of Instruction, 1939, and Military Training Pamphlet No. 33. The latter pamphlet and Small Arms Training also give detailed examples of the methods of teaching lessons. These instructions are summarized below.

2. A distinction is necessary between instructing and lecturing. The instructor deals with a small class, preferably 6 or 7, and aims at educating each individual; he makes the class take its share in the lesson. On the other hand, the lecturer addresses a mass and pre-supposes a certain level of knowledge.

Lectures are a useful means of stimulating interest and so leading to a study of the subject with which they deal; they should seldom be used as a direct means of teaching a subject.

3. A tutorial discussion, on the other hand, ensures that those under instruction make use of the knowledge which can be obtained from a study of the various manuals at their disposal; it trains students to work in their own time and to acquire knowledge from their own study. Tutorial discussions should therefore be substituted for lectures in most cases where students have access to books dealing with the subject to be taught.

Before a tutorial discussion the students should be ordered to study certain portions of training manuals or other selected books; at the discussion certain points will be raised by the instructor to test whether students have grasped the essential points; students will be faced with practical examples and situations to demonstrate the application of the principles, and will be asked themselves to bring up points for discussion which they have found difficult to understand or apply.

22. Maintaining interest

Instruction is most effective when the will to learn is present, and this comes when the man is interested in his subject. It should therefore be the object of the instructor

to seek out methods to stimulate and maintain interest. The following are examples:—

- i. *Variation of work.* Periods should not be too long, and periods of similar work should not succeed each other.
- ii. *Avoidance of over fatigue*
- iii. *Grading of students.* Squads should consist of students of the same level of education.
- iv. *Enthusiasm.* The enthusiastic instructor will obtain a better response from his class than one who, though equally competent in his subject, lacks the power to communicate his enthusiasm.
- v. *Avoidance of counter attractions.* These will divert the interest of those under instruction.
- vi. *Competition.* Individual competition is valuable, but it should not be overdone lest it should unduly depress the slower members of the squad. Collective competition is more valuable.
- vii. *Comfort.* The squad must be so placed that every man can see and hear without strain or discomfort.
- viii. *Appeal to intelligence.* As early as possible the squad must be made to understand the *object* of the lesson and why it is necessary. Suggestions should be encouraged.
- ix. *Appeal to inquisitiveness.* The squad may be told to try to find out for themselves how the subject of the lesson is performed; their interest will then be aroused when the correct method is demonstrated. (e.g. Give a man a rifle and a charger of ammunition and tell him to load.)
- x. *Avoidance of talking.* Long monologues by the instructor are rarely necessary.
- xi. *Question and answer.* Question should be addressed to the whole squad and not to a particular individual, then after a pause, one man should be asked for the answer. Men should not be questioned in rotation. The competitive spirit may be introduced by dividing the squad into two teams and dealing with questions on the principle of a spelling bee.
- xii. *Questions by students.* These should be encouraged and answered sympathetically.
- xiii. *Avoidance of "cleverness."* Instructors must guard against showing off by using long words which will not be properly understood or by teaching unnecessary details.

xiv. *Action.* Action stimulates interest. The squad should not be too long without movement; individuals may be called upon to demonstrate points of training, while in teaching a mechanical subject the men should be allowed constantly to handle the subject of instruction.

xv. *Jokes and diversions.* When interest is showing signs of lagging, a joke by the instructor, an unexpected question unconnected with the instruction, a practical illustration or a quick order requiring physical action (e.g. "Round that tree and back again—double") will give an interval of relaxation. A laugh is a good stimulant, but the use of stimulants must not be overdone.

23. The sequence of instruction

Instruction should be given, where practical, in the following sequence :—

- i. *Explanation.* The object of the lesson must be made clear.
- ii. *Demonstration.* Men learn more rapidly by the eye than by the ear.
- iii. *Execution.* Men imitate the demonstration and correct their mistakes by criticising and being criticized by others.
- iv. *Repetition.* Practice to gain improvement in accuracy and speed of execution which may be carried out on a competitive basis. Suitable lessons should also be repeated in conditions of darkness.

24. Hints to instructors

1. A good instructor requires the following :—

Common sense.

Enthusiasm.

Sympathy with and interest in those under instruction, and an understanding of their outlook.

Knowledge of his subject.

A clear idea beforehand of the lessons to be taught and how he proposes to teach them.

Ability to encourage by praise where praise is due and to avoid sarcasm.

The ability to use his own words rather than a repetition of the words in the book.

2. No method of instruction will be effective unless it possesses simplicity and interest. The following are a few hints to instructors.

However experienced he may be, the preparation of the next day's work is essential, and all the necessary stores and training appliances must be placed ready for use before the beginning of each lesson.

He should be brief and keep to the point, avoiding non-essentials. He should let students know early the application and object of each exercise.

He should avoid personal mannerisms which distract the attention of the squad. He should speak quietly, slowly and distinctly and avoid either a monotonous voice or shouting.

In giving demonstrations he must be accurate in all his movements. He must remember that everything he does is liable to be copied, although it may be unrelated to the exercise.

He must expect and look for mistakes. Encouragement should follow correction. In correcting faults he should make a man correct himself and should explain why the faulty method is unsatisfactory. A brief demonstration of the fault, followed by interrogation, is often a good method of bringing it home. Faults due to slackness or neglect should be dealt with firmly, but criticism after an honest effort must be such as to produce a further and better effort. Good work should always be acknowledged.

Where a single weapon, etc. (i.e. L.M.G. or anti-tank rifle) is used, a table is desirable so that the squad may be seated where they can best see the action.

One of the most important tasks of the weapon training instructor is to coach the firer on the range. To do so training in the theory of coaching (vide S.A.T., Vol. I, Pamphlet 1, Appendix II) is essential; an instructor who does not understand this theory is likely to do more harm than good.

25. The use of models

Models form a useful medium for instruction as they enable demonstrations to be given indoors in miniature. The sand table and cloth model of ground (see Sec. 26) are the best known; there is, however, no limit to the useful models which may be obtained or made at little cost. For example, the drill of wiring may be taught indoors with model pickets made of thick wire (about $\frac{1}{2}$ scale) and rolls of string to represent the barbed wire; the development of a trench system may be demonstrated with a great reduction of work by digging it $\frac{1}{2}$ scale; small wooden blocks of a different shape for each type of vehicle may be used for teaching the handling of transport; and many men will enjoy making a small scale model of kapok bridging equipment.

26. The sand table and cloth model

Although the sand model can never replace ground for training, it has great value for elementary tactical training. The following notes give details with regard to the preparation of the model:—

Size of table. Approximately 6 ft. by 4 ft. with a depth of 4 in. or 5 in. The eyes of the students should be just above the level of the table to give them a realistic view.

Scale. This will depend on the scheme. For section and platoon training the width of the table should be approximately a platoon frontage.

Soil. Sand is best, but earth may be used. Depth of sand should be about 3 inches.

Buildings. These add interest and reality to the model. They are easily made from wooden blocks.

Rivers. These are easily made, if the bottom of the table is painted blue, by clearing sand away along the course of the river. An alternative is to sprinkle sawdust which has been soaked in ink.

Bridges. Easily made from wood or cardboard.

Roads. Made by sprinkling sawdust or by pinning down tape.

Trees and hedges. Loofahs dyed green may be used. The outside, cut in strips and pinned down with hairpins or wire is used for hedges; while the insides, suitably cut and mounted on small sticks, look well as trees. Dry moss may also be used.

Men. Halma men, matches or *small* toy soldiers may be used.

Shell bursts. Cotton wool. If on wire, it represents shrapnel.

Toys. Many small toys can be bought very cheaply to add realism to the model.

The principles for the preparation of a sand model exercise are the same as for other exercises except that the ground may be made to suit the exercise. The instructor should, therefore, decide on his lessons, make a rough sketch of the ground he wants, and then make it up on the model, keeping his lessons constantly in mind.

A model should not be too elaborate; it is a waste of time, and there may be a reluctance to break it up. The same model should not be used too long, or men will lose interest. Except when studying some operation which has actually taken place no attempt should be made to copy an actual piece of ground; it takes too long and cannot be made accurate enough to ensure against false teaching if the scheme is transferred to the ground.

27. Demonstrations

Training by demonstration is a particularly suitable method when large numbers have to be trained intensively.

Most points of elementary tactics and procedure are suitable subjects for teaching by demonstration. The demonstrations may be staged in a variety of ways :—

i. *Unrehearsed.* The operation may be carried out unrehearsed by a portion of the unit under instruction ; the remainder being told to observe, and being subsequently asked for criticisms. The instructor with each group of onlookers questions them on what is being done well or badly and then explains what should have been done and why. The whole value of the exercise will depend on the instructors being clear in their own minds as to the lessons to be brought out, and on their ability to keep the onlookers interested, alert and critical.

As soon as the first party has finished, a second group should carry out the operation in the light of the lessons they have just learned, while the first party and the remainder observe and criticize them.

ii. *Rehearsed.* Other demonstrations may be staged and rehearsed to teach a definite tactical lesson or to stress some particular point (e.g. the fire power of a platoon). A demonstration of the "wrong way" followed by the "right way" of carrying out some task will often be the best way of bringing out the lesson. Further instructions with regard to demonstrations, with examples, will be found in Military Training Pamphlet, No. 33.

Tactical demonstrations must be used with care to prevent the impression that tactical problems may be solved by the use of a drill. Stress should, therefore, be laid on alternative solutions and the fact that the solution shown would probably be wrong in another set of circumstances.

Demonstrations such as the occupation of defensive positions, fighting patrols, wiring, reliefs, battle procedure, movement of M.T. into a concealed area, concealment and camouflage, and action when subjected to gas require careful rehearsal and time to prepare. The selection of the best viewpoints for spectators must be based on the necessity of emphasizing or throwing into relief the high lights.

A demonstration should be restricted to a very few definite lessons and whenever possible should be followed by practice.

CHAPTER VII.

THE PREPARATION AND CONDUCT OF EXERCISES

28. General

1. All officers should receive training in the preparation of tactical exercises. The preparation of exercises is in itself most valuable training, since it involves study, grasp and application of the principles laid down in the Training Manuals and their application to ground.

2. *Types of exercise*

During individual training, exercises will generally take the form of T.Es.W.T. either on the ground or the sand table, and simple war games on large scale maps.

Collective training will consist of a series of schemes of various types. The method of instruction employed will depend on the lesson to be taught, the standard of training already reached by the unit, and the need for progressive instruction.

The following sections discuss the characteristics of the different forms of exercise.

29. T.Es.W.T.

1. T.Es.W.T. form the basis of the tactical training of the unit and should be carried out at frequent and regular intervals during the individual training period.

2. A useful method of instruction over a period is to run a series of exercises on the same scheme, each situation being considered in stages down to the smallest sub-units. Thus on the first day a situation would be considered mainly from the battalion point of view, dealing with one company in detail; this would be attended by captains and field officers, the instruction being given by the commanding officer. At the next outing the exercise would be repeated, dealing with the selected company and the action of one of its platoons, the instructors being the company commanders, and the students being their platoon commanders and senior N.C.Os. After a series of situations have been dealt with, the same battle may be fought from the enemy point of view in the same way. It will generally be found advisable in an attack and defence exercise to consider the defending side first.

It is not, however, always necessary to have a continuous story running through even a one-day exercise. For example, if the object is to consider one particular point—e.g. the siting of localities with reference to tank obstacles—it will be easier to find suitable ground by presenting a series of disconnected and contrasted problems. The first may be one where the correct answer is obviously to go behind the obstacle, while in the following situation it may be equally obvious that the foremost position must be in front of the obstacle. In subsequent situations the solution should be less easy. From these contrasting situations a balanced opinion may be formed and sound lessons deduced.

3. In all T.Es.W.T. the likely enemy action should be fully considered. Whenever possible, an officer who has not been responsible for preparing the exercise should be detailed to place himself in the position of the enemy commander and to make his dispositions accordingly. In making such dispositions he should employ the German organization.

30. Skeleton exercises

Skeleton exercises are designed for the training of headquarters, signals and the administrative side of the battalion.

31. One-sided exercises

The majority of exercises in platoon and company training will be one-sided exercises, in which the enemy is represented by a skeleton force controlled by the director. A proportion of one-sided exercises will also be included in battalion training. These exercises are preferable for teaching the elementary lessons of tactics, control and co-operation, since the director can predetermine situations.

The commander of the "full strength" side will, as a rule, be given orders to carry out some specific task (e.g. "to capture A," "to defend B," etc.), and his initiative will be limited. In spite of these restrictions, the exercise should be kept as realistic as possible by direction and umpiring.

In the early stages of tactical training one-sided exercises should be carried out by phases, each phase being repeated and practised until the lesson has been fully understood and mistakes rectified (see also Military Training Pamphlet No. 33, Sec. 4).

It will sometimes be advisable to go over the exercise beforehand in the form of a T.E.W.T. The more serious mistakes which the leaders make can then be corrected in

advance and, when the exercise is repeated with troops, it will present to all ranks a much better picture of how the action should be fought, inexperienced leaders will command with confidence, and officers will be more free to supervise the action of their subordinates.

32. Two-sided exercises

In two-sided exercises, both sides are represented by troops and both commanders have freedom in the execution of their tasks. These exercises are preferable in respect of their realism and practice in command and are of greater interest to the troops, but as tactical situations cannot be pre-determined, they are less suitable than one-sided exercises for teaching a specific lesson.

Two-sided exercises can be arranged by pitting one platoon against the remainder of the company, or one or more companies against the remainder of the battalion. This method has, however, the disadvantage that it breaks up the normal tactical unit. It is preferable, therefore, to pit company against company, and battalion against battalion, which involves the direction of the scheme by the battalion commander or brigadier respectively.

33. War games

Elementary war games between platoon and section commanders and dealing with the action of their commands may be fought on duplicate sand tables or large scale maps. The opponents should be in separate rooms and should be made to give their orders in the presence of umpires to whom they will also describe their movements. The umpires, on whom the success of the game depends, will describe to each side what they would have seen or heard in war.

34. Sequence of preparation

The preparation of the tactical exercises referred to in Secs. 29 to 33 should follow the same general lines. The procedure outlined below will save time, and should ensure that exercises present in a simple and easily understandable form the lessons they are intended to teach.

1. Object

Each exercise should be designed to teach or bring out one or more definite lessons. These should be clearly defined before anything else is done and they must be kept constantly

in mind while preparing the exercise. It should not be attempted to teach more than two main lessons in any one exercise, though other lessons will inevitably come to light as by-products of the main object of the exercise.

To state as the object of a scheme that it is to deal with "The attack" or some other general subject is not sufficiently definite.

2. *Preliminary plan*

When the director is clear with regard to the object and lessons, he will consider how they may best be taught, (whether by a skeleton exercise, one-sided exercise or two-sided exercise), and the time required to fulfil this object. He should then design in his mind the situations required and consider the type of ground necessary for his purpose.

3. *Study of the map*

He should then, unless he knows the country well, study the map for areas which appear suitable to bring out the situations desired.

4. *Preliminary reconnaissance*

At the first reconnaissance the area should be selected and thoroughly studied. Possible situations to bring out the lessons decided upon should be considered.

5. *Preparation of scheme in outline*

The framework of the narrative and the various situations can now be prepared, the lessons being kept constantly in view.

6. *Second reconnaissance*

At this reconnaissance the necessary alterations should be made to the outline scheme and details should be filled in. If the exercise is to be a T.E.W.T., view points and stands for discussion should also be selected; if it is to be a one-sided exercise the action of the controlled enemy should also be considered in detail.

7. *Writing-up the scheme*

From the work done on the ground, the scheme can now be completed indoors.

8. *Final reconnaissance*

A final reconnaissance on the ground should ensure that the finished scheme is entirely satisfactory. This should be attended in the case of a T.E.W.T. by other members of the directing staff, or in the case of an exercise with troops by the umpires, and, if a controlled enemy is being provided, by its commanders.

9. *Administrative arrangements and time-table*

Finally administrative instructions and a time-table should be prepared.

In the case of small exercises for platoons, it will be possible to omit some of the above stages. The general mental sequence should however be adhered to.

35. "Writing-up" a scheme

1. The extent to which a scheme must be written up will depend on its scope. For most platoon exercises and for many company exercises, the issue of written narratives will be unnecessary, but this does not mean that the scheme need be less thoroughly prepared. An outline T.E.W.T. is given at Appendix III.

A scheme will normally consist of some of the following parts:—

2. *Object (all schemes)*

The object of the scheme should first be clearly stated with reference to the paragraph of the training manuals in which they are discussed. Whether this "object" should be issued to the troops taking part or only to umpires or directing staff will depend on circumstances. Its issue ensures that all are considering it from the outset, but on the other hand there is a danger that it may unduly influence the decision of commanders, particularly in two-sided exercises. For a T.E.W.T. the "object" should, as a rule, be issued.

3. *Opening narrative (all schemes)*

The opening narrative should be as simple as possible, and for a platoon, company and even battalion exercise need be merely sufficient to describe clearly the local tactical situation and the task of the commander. A few lines will generally be sufficient, giving the position of the unit under consideration and the necessary information about the enemy and friendly troops, and the task to be undertaken. This can often be given in the form of a precis of an order from a superior authority.

For a two-sided exercise, the opening narrative will be replaced by a "general idea," to be issued to both sides, and a "special idea" for each side.

Opening narratives should, in the case of company and battalion schemes, be issued in sufficient time before the exercise for them to be explained to all

ranks before the exercise begins. For platoon exercises, they can generally be explained on the ground.

In the case of T.Es.W.T. (and sometimes for exercises with troops) the opening narrative may include a problem to be answered before going on the ground, such as an appreciation, which will ensure that all students are "in the picture" before the exercise starts.

4. *Situations*

In the case of a T.E.W.T., each situation is merely a fresh narrative based generally on the solution of the previous problem. In the case of exercises with troops, new situations may be brought about by means of predetermined action by the controlled enemy, or by the issue to the troops of operation orders and instructions from higher authority.

5. *Points for discussion. (T.Es.W.T. only)*

Notes should be prepared for each situation to assist the directing staff in guiding discussion. These notes should state clearly the object of the problem and should then deal with the problem in the form of an appreciation. Each problem should admit of more than one reasonable solution to force those under instruction to weigh up the merits of the various alternatives, and to make a decision.

The notes should be used only for reference and to ensure that points are not overlooked; little value will be gained if they are read over verbatim to those under instruction. The instructor should encourage argument between the protagonists of different solutions put forward, and guide the discussion in such a way that all matters of importance are considered. Finally, in a short summing-up he should stress the object of the problem and the lessons it was intended to bring out.

Decisions in war must be followed by action which generally involves the issue of orders. Solutions should, therefore, where applicable, be required in the form of verbal orders. This will not only give valuable practice in the issue of orders, but will also ensure that the decision is definite, while the clarity of the orders can be tested by questions to other students.

6. *Notes for umpires. (Other than T.Es.W.T.)*

Instructions for umpires should contain the following details:—

The object of the exercise, if not issued with the narrative.

Outline of scheme. A rough appreciation of the probable

development of the scheme and details of how the director hopes it will achieve his object.

Points for report. Notes with reference to training manuals of points to which particular attention is to be paid and on which reports are required.

Allotment. The allotment of umpires to sub-units.

Special duties. Instructions with regard to any special duties, for example, to represent artillery, tank or other commander, to act as liaison officer from an imaginary unit on the flank, to mark demolitions and in the case of one-sided exercises to paint the picture of enemy action.

Transport. Allotment.

Fireworks and other training devices.

7. Instructions for enemy (one-sided exercises only).

Full instructions should be given to any skeleton enemy provided. The details will be similar to those required by umpires.

8. Time-table (T.E.S.W.T.).

In the case of a T.E.S.W.T. a detailed time-table should be worked out and tested as far as possible on the ground before the exercise. Ample time should be allowed for discussion.

9. The conference

A conference should be held after each exercise for subordinate leaders and the troops taking part. Sometimes it will be advisable for separate conferences to be held, or, in the case of battalion exercises, that a battalion conference for officers and N.C.Os should be followed by company conferences for the troops, the important point being that every man who took part in the exercise should know something of its object, development and lessons. If men are not so told, they cannot be expected to train with keenness or interest.

Conferences should not be allowed to develop into debates in which commanders try to justify their actions. The director should do most, if not all of the talking. He should first explain the object of the scheme, and then describe shortly its development, pointing out the lessons which were brought out. The number of lessons dealt with at the conference should be limited.

CHAPTER VIII

UMPIRING

36. The purpose of umpires

1. Training exercises are designed to teach and give practice to commanders and troops in the action to be taken in face of the enemy. The difficulty in such exercises is to produce the realism of war, and it is to meet this difficulty that umpires are employed. Their main tasks are:—

- i. To represent to the troops what they should see and hear with both sides using—as in war—live shells, bullets and bombs.
- ii. To describe the noise and effect of demolitions, the position of wire obstacles, trenches, etc., which, though imaginary, would have been constructed and be visible in war.
- iii. By means of umpire rulings to represent the probable result of the enemy's counter-measures to actions taken by the troops.

Poor umpiring can ruin a good scheme, while good umpiring can improve an indifferent one. Umpires must be energetic and alive. With tact and common sense they will gain the confidence of commanders and troops, which is essential for co-operation.

2. Co-operation

The umpire's difficulties must be appreciated by commanders and troops under training, who must accept that the umpires are doing their best to make training realistic. Too often, commanders appear to place the outwitting of umpires above the training of their commands and the outwitting of the enemy. This is a short-sighted policy and may be caused by bad umpiring. It is irritating to have one's plan upset by an umpire's ruling, but plans are upset in war and it is better to fail in a training exercise than to leave the lesson to be learnt at the expense of casualties in war.

In particular umpires must be careful that their movements do not betray the plans of the troops with whom they are working.

Should a ruling be required when troops are in contact and no umpire is immediately available, it is the duty of opposing

commanders to take over the umpiring duties temporarily. They must however hand over their commands at the same time.

37. Training of umpires

1. All officers and as many N.C.Os. as possible should receive training as umpires; even if not later so employed the training will do much to ensure co-operation. Umpiring is in itself a valuable form of training. "The onlooker sees most of the game" and the fact that the umpire must be constantly considering the reactions of *both* sides cannot fail to teach lessons of value.

2. Umpire training can be carried out on the sand model and by means of T.Es.W.T. In these schemes situations should be produced requiring umpire action, and those under instruction should be required to repeat exactly what they would have said to commanders and troops in an actual exercise. Apart from making the correct decision, the power of description does not come easily to all and requires practice.

3. In addition to their main object of umpire training, these schemes are also of value as general tactical training and as a means of describing the atmosphere of war to those without active service experience.

38. The representation of fire

1. The main difficulty in umpiring is to represent accurately the effect and volume of enemy fire.

The means employed will depend to some extent on the type of exercise, whether both sides are represented or whether one side is a controlled or skeleton enemy.

When both sides are fully represented, before an accurate description of fire can be painted the umpire must visit the troops producing it or obtain details from the "enemy" umpires. It follows that umpires must think and move well ahead, anticipate developments and be ever on the lookout to exchange information with the umpires of the opposing troops. Lulls in the fighting should be used for this purpose. The fire to be pictured must be such as in the opinion of the umpires could reasonably have been produced in the circumstances. Consideration must be given to ammunition expenditure and supply.

With a skeleton or controlled enemy, the fire to be described will depend on the intention of the director of the exercise and will be designed to bring about the situation desired to teach the lessons on which the exercise is based.

2. *Verbal description*

It is not easy to convey in a few words a clear, accurate and easily understood description of the type and effect of fire, visibility of wire, trenches, etc., even when based on practical war experience. Good umpiring is dependent on this "picture painting" and umpires without war experience must draw on their imagination and pick up what they can from those with experience, from range demonstrations, etc.

For example, though it is not difficult in war to realize when you are under machine gun fire, it is a very different matter to know from which direction it is coming and even more difficult to locate the actual gun area. It would therefore be wrong to tell troops that they are held up by so many machine guns firing at them from some specific point. The correct action would be to tell them the type and intensity of the fire and the losses that are being suffered ; this might be followed after a pause by the general direction from which it is coming. The troops should then form their own conclusion regarding the number and description of the enemy, and the detailed location of the enemy would depend on their observation of enemy movement or the sound of his fire (blank, rattles, etc.).

Umpires must not give to the troops more accurate information than would be forthcoming in war and, from their own knowledge of the probable course of operations, they must not give the situation away. They should indicate to them what they can see or hear of hostile fire and action in their vicinity. The conduct of the fight must lie in the hands of the commanders ; and umpires, while describing the situation, must leave it to the commander to decide on his course of action. For example, an umpire must not tell a body of troops that they have been shelled off a hill ; the correct action is to tell them the rate at which casualties are being inflicted and to leave them to take whatever action they think fit.

Umpires must not give to commanders and reserves information which, in war, they could only receive by messages from the leading troops. For example, information that the enemy has withdrawn, that the forward troops have suffered such casualties that they are held up, or that a success has been gained on a certain portion of the front, should reach the commander from the forward troops, with whom it is the duty of commanders and reserves to keep in touch. Such information should therefore be given only to forward troops and observation points. The whole chain of command is thereby exercised.

As an umpire cannot describe the situation to every man, it is the duty of commanders to pass on his description of the situation to all under his command. Only by this means will interest in training be maintained and the lessons broadcast.

3. *The use of flags*

For certain controlled exercises, more particularly in elementary training, concealment of the defence may be relatively unimportant, while it will be essential that the men should realize immediately they are under enemy fire. In such cases umpires may be posted with flags at enemy posts. When these posts open fire the umpires should stand up and point out their targets by successively raising and lowering their flags in line with their targets, the rate of movement representing the rate of fire. Different coloured flags may be used to indicate rifle and machine gun fire. The use of these flags may be combined with blank ammunition, rattles, drums, etc.

4. *Blank ammunition, rattles, lamps, etc.*

Blank ammunition, rattles, drums, flash lights and other devices may be used to indicate more realistically the point of origin of fire. Blank is particularly useful as a check on ammunition expenditure, particularly if each round of blank is made to represent a fixed number of rounds of the ball ammunition carried in war. If other means are used, there is a danger of an expenditure of ammunition being represented which would be quite impossible in war.

5. *Fireworks*

Full use should be made of fireworks for adding realism to the training.

39. *Umpiring an exercise*

1. *Before the exercise*

Before the exercise umpires should be given :—

Full details of the scheme.

A short appreciation of the probable course of events.

Their tasks in particular.

Details of points of tactics or procedure to be particularly watched.

Information where the director of the exercise may be found.

Means of transport and intercommunication.

Time to reconnoitre the area.

The amount of detail given will depend on the nature of the exercise.

2. During the exercise

During the exercise the main duties of umpires are as follows :—

To notify troops with whom they are working of the direction and intensity of the enemy's fire and of its effect on the progress of operations.

To represent commanders of, and liaison officers from, all supporting arms and adjacent units not otherwise represented in the exercise.

To keep their immediate superior and the nearest "enemy" umpire informed of the plans and orders of the commander with whom they are working, and of any umpire ruling given.

To pay particular attention to those points about which the director has called for information at the end of the exercise.

To assess the outcome of tactical encounters. When contact is imminent forward umpires must push well ahead so as to learn the distribution and intentions of the opposing sides from opposing umpires. As the action progresses the umpires of both sides will keep themselves and each other informed of the situation, so that a prompt ruling may be given as soon as it becomes necessary.

3. After an assault

After an assault it is important that the ruling of the umpires should be given promptly, and it will therefore sometimes be advisable for the senior umpire on the spot, after taking all relevant factors into consideration, to prejudge on broad lines the result of an impending assault and notify other umpires accordingly. Prejudging should, however, be avoided as far as possible, and in any case local umpires should be empowered to modify the decision in the event of troops being unexpectedly mishandled.

In order that the value of determined resistance may be emphasized, it is important that a commander of an advanced detachment who decides to fight to the last should be given all possible credit for any delay or loss to the attacking troops which would have resulted from his action. Similarly, in defence even where an attack is adjudged successful, elements of the defenders which have escaped the covering fire of the attack should be allowed to exert resistance and cause delay. *

After an assault, adjudged successful, the situation may be dealt with in one of the following ways:—

To order the defeated troops which have taken part in the actual contest to withdraw to a definite locality at such a distance in the rear that a new situation can be created and there will be no danger of a running fight ensuing. The successful troops will be allowed to occupy the captured positions at once and to continue operations after a defined interval imposed by the umpires.

A proportion of the defeated troops may be taken prisoner and dealt with as in war. This has the advantage of creating a more warlike situation, and the loser is penalized in a more realistic manner, while the winner is faced with the problem of evacuating the prisoners. It has the disadvantage that a proportion of the men take no further part in the exercise and lose the training value which they would otherwise receive.

4. *Gas umpiring* considering the safety and welfare of

Instructions for umpiring gas situations are given in Training Regulations, Sec. 78 as amended by amendment No. 5 of 1939.

Gas spray detector cards and individual detector slips are now issued to gas umpires. Both are marked to represent the effect of large or of small drops. The former will be put down by the umpire in the vicinity of troops, and the latter pinned on to a man's arm. Both represent gas spray in the immediate vicinity in which they are used.

5. *After the exercise*

After the exercise a conference of umpires should be held to assist the director in his final summing up.

APPENDIX I.

OUTLINE OF A SKELETON EXERCISE FOR BATTALION HEADQUARTERS

PART I

(For issue to troops taking part).

Regt.
 Bn. Exercise No.
 Date.
 R.V.
 (Issued day before exercise)

1. *Object.* To exercise battalion headquarters in battle procedure.

2. *Narrative.* The enemy is holding a position dug and wired on the general line A - - - B covered by outposts; farther back he has a reserve position on the general line C - - - D, but this is not continuous and is only wired in parts.

2 and 3 inf bdes are to capture the enemy line A - - - B on their front by a deliberate timed attack, after which 1 inf bde is to break the enemy reserve line to allow mobile formations to pass through.

10 and 51 divs are co-operating on right and left flanks respectively.

Leading brigades attack is timed for.....hrs., at which time 1 inf bde is concentrated in the area E - F - G (approx. 4 miles to the rear).

When the scheme opens, the attack of the leading bdes is in progress and 1 Blankshire R. is disposed in this area. Bn. H.Q. is at.....and B echelon transport under brigade control is at.....

3. *Troops taking part.* Bn. H.Q., headquarter company (less carrier and mortar platoons), and transport of rifle companies.

4. The exercise will begin at.....hrs., when troops taking part will be disposed as they would be in war in accordance with the narrative. The exercise will end about midnight.

PART II

(For umpires and enemy only)

Scheme Secret.

1. *General instructions.* Umpires will act the part of company commanders, etc. The reality of the scheme depends on their actions and they must use their imagination in

filling in gaps in the timetable below, in replying to questions, and in acting their parts. If intelligence personnel are sent to observe in their areas they must describe to them what they would have seen in war, to enable them to make their reports. "Enemy" may also be used (see para. 6 below).

Umpires must be good company commanders, doing the right thing and including in their messages items likely to help the C.O. such as notes on covered approaches, warnings about places regularly under fire, suggestions for observation posts and information of what is happening on their flanks. Other messages should deal with casualty reports, ammunition, etc. The number of messages from a company should vary between 2 and 4 in an hour. The flow of messages must be kept up while headquarters are being moved.

2. *Allotment of umpires.* This para. should detail the umpires to their particular tasks, and allot transport and training stores.

3. *Preliminary reconnaissance.* This para. should give details of the time and rendezvous of the preliminary reconnaissance and arrangements for rehearsing enemy, etc.

4. *Tactical picture.* The general tactical picture is as follows :—

"Leading bdes attacked at.....hrs. 3 inf bde was successful after hard fighting, but 2 inf bde had only moderate success. Divisional commander decided to put 1 inf bde through 3 inf bde and issued orders to this effect at.....hrs.

"Comd 1 inf bde decides to attack with 1 Blankshire R. on the right and 2 Downshire R. on the left, with 1 Shetland Highlanders in reserve. Blankshire R. attacks with A and B coys directed respectively on.....and..... from starting line..... B coy on left finds a gap and advances, C and D coys are pushed through this gap with objectives.....and..... on the right and left of B coy. These coys reach their objectives just before dark. After dark there is active patrolling ; the line gained is consolidated by C and D coys ; B coy is withdrawn to reserve ; an enemy counter-attack is made on D coy and is eventually repulsed ; C coy takes some time to gain touch with friendly troops on its right but eventually succeeds ; bn. H.Q. is moved forward after dark ; arrangements are made for food and rations to be sent forward."

(Note.—This outline has been designed to force the establishment of headquarters both by day and by night, to cause frequent and crossing moves of company H.Q., and to produce situations which will necessitate the maximum number of messages and orders).

5. Time Table

(Note.—The following are merely extracts from a possible time table and are given as examples. Messages and orders marked “@” should have been prepared beforehand.)

Time	Action
1400 hrs.	Message @ from bde calling for C.O. for orders. He gives a rendezvous for his own reconnaissance group. Messages coming in from any intelligence liaison patrols sent out.
1430 hrs.	C.O. notifies signal officer general area in which H.Q. will be situated and releases him. Tells adjutant to send message to 2nd in command with battalion to get on the move to forward assembly areas.
1450 hrs.	C.O. gives verbal orders for attack @ from view point.
1520 hrs.	C.O. and adjt. return to H.Q. which should by now be established. Adjt. issues confirming orders.
.....	{ Routine messages @. Situation reports from coys and notification of their H.Q. Bde intelligence report. Notification of bde move, etc.
1700 hrs.	A and B coys attack. (The attack should be described for each company separately so that umpires can send appropriate messages. Points to be included will be times at which various objectives are reached, progress of troops on the flanks, ammunition situation, etc. For example : “A Company. After advancing....yds. M.Gs. from.... and rifle fire from....made progress slow....Mortar employed to neutralize....at.... hrs. Left platoon gets on through gorse and reaches....at....hrs. No progress can be made beyond this point owing to heavy fire from.... and.... Company has four stretcher cases and is short of ammunition. Coy comd can see troops of.....Regt at.....a bit behind on his right,” etc.)
1730 hrs.	Heavy mustard gas shelling of bn. H.Q. to force a move to alternative position. (Training substitutes.)
1740 hrs.	Message @ from bde. “No report from Down-shires. Can you report their progress.” and so on.

Other messages from brigade may include notification of move of headquarters, intelligence summaries, applications for special information (e.g. Is the bridge at.....intact?), calls for casualty reports, orders to halt and consolidate, to carry out special patrols, etc., notification of traffic circuits, etc. Messages from flanking battalions may include changes of H.Q., situation reports, applications for assistance with fire, etc. In addition there will be messages from artillery, B echelon, etc.

6. *Enemy*

A party of.....for enemy and other purposes will be detailed by.....and sent in trucks to R.V. at.....at..... Each man will carry 20 rounds of blank.smoke candles will also be carried.

Groups of these men may be moved from the rendezvous by umpires to produce situations as required; on completing each task they will return to the rendezvous where they will be available for a fresh task.

Umpires will bandage some of these men as casualties giving details of their wounds on a slip of paper. They will be sent to the R.A.P. walking or by stretcher according to the case. When evacuated by ambulance they will be returned to their rendezvous and become available as fresh casualties.

Other men may be "captured" as prisoners and sent back to battalion H.Q.

APPENDIX II.

OUTLINE OF ONE-SIDED EXERCISE FOR A BATTALION

1 Blankshire R.
Bn. Exercise No. 1
1 July 1940.
R.V. 999999.
Time 1000 hrs.

1. *Type of exercise.* One-sided, by phases.

2. *Objects*

(a) To overhaul the battle procedure for reconnaissance and the deployment of the battalion (see I.T., Chapter VIII).

(b) To consider the requirements of a rear guard position.

3. *Personnel*

Director	..	..	C.O.
Umpires	..	..	(detailed).
O.C. bn	..	..	Major X.
2nd in comd	..	..	Major Y.
O.C. enemy	..	..	Lieut. Z.

4. *Enemy*

The enemy will consist of 1 N.C.O. and 3 men to be detailed by each company, 1 sec carrier platoon, and the intelligence section (less the intelligence serjeant and 2 men).

NOTE.—For object (a) it is necessary for all companies to be represented and therefore enemy is taken from all companies; in view of object (b), the intelligence section will get better practice working with the enemy, but a representative intelligence headquarters must be left with battalion H.Q.

5. *Signals*

The "stand fast" will be blown when the director wishes to stop any phase; no movement will take place after the bugle until the call to continue is blown or special instructions (e.g. to repeat the phase) are issued.

6. *Conclusion of exercise*

Troops will return to barracks by hrs.

NOTE.—This information is required by those responsible for feeding arrangements, etc.

NARRATIVE

Your battalion billeted at..... is in the 1 inf bde, one of the reserve bdes of a defensive position on the general line..... Sudden orders are received during the night 1/2 May that a withdrawal is to take place to conform to the action of forces elsewhere. 1 inf bde is to hold portion of a rearguard position about (10 to 12 miles back) through which the remainder of the division will withdraw. Your battalion marches at hrs. and reaches (near the position to be held) at hrs. (about dawn).

(A short narrative sufficient to give the general picture. The issue of this narrative the day before the exercise will force everyone to consider the distribution of the battalion on the line of march. It will give them time to study maps and to consider likely requirements in order and reconnaissance groups.)

Situation 1

At..... hrs. at..... a message is given to the C.O. summoning him to a R.V. with bde comd for orders. (Timings should allow the C.O. about ten minutes before he need start for bde.) Information is given (a) that the battalion will occupy a sector of the bde front about (not too definite) with flanks approx. at..... and (b) that 2 and 3 inf bdes will pass through the position

about.....hrs. and thereafter that cavalry will cover the occupation of the position until hrs. Enemy mobile forces are expected to follow up the retirement closely.

Situation 2

Director representing bde comd will issue orders at R.V. Umpires will represent arty, m.g., etc., officers in support of the bn.

Situation 3.

After the bn has moved into its defensive position and has begun work, information will come in that enemy is following up energetically. At.....hrs. there will be a message that most of 2 and 3 bdes have passed through. Soon after, enemy mechanized troops will approach the position and *later* the div cav regt will report that it has been forced to withdraw more rapidly than was expected.

NOTES FOR UMPIRES

The notes for umpires include notes on points to be particularly watched. For example:—

Situation 1

The object of this situation is to test the battle procedure of the battalion. On receiving the message the C.O. has a few minutes before leaving for brigade and there will probably be about 45 minutes before he will require his subordinate commanders for orders. Umpires will check carefully any waste of time or effort or any duplication of work and suggest any improvement which could be made.

The action should be approximately as follows:—

By the C.O. He will, after a quick look at his map, order the subordinate commanders reconnaissance group to meet him at a selected point in 40 minutes time. He might be able to say: "A company will be in the line with B company on its right; if I have to put three companies up, C company will be on the right of B. D company will provide any covering troops necessary. Second in command will arrange move to assembly areas forthwith."

By company commanders. They can now go straight off on a preliminary reconnaissance, having taken the action laid down in I.T., Sec. 40, leaving their seconds in command to lead their companies forward.

Battalion second in command. He will move the battalion to suitable assembly areas under cover, the area selected for each company, etc., will be near its probable position to save time and unnecessary marching. He will make necessary

feeding arrangements, knowing that in about an hour's time the whole battalion will be at work.

Situation 2

This is largely a test for the adjutant in making notes of the essentials from the orders, which though prepared beforehand should be issued verbally.

Situation 3

The notes should cover the action of both the umpires and the enemy. They would indicate the points and times at which A.F.Vs., etc., are to appear and the degree of pressure required. Umpires should check up the defence in details particularly the fire plan and co-ordination with other arm and concealment.

APPENDIX III

OUTLINE OF A T.E.W.T. FOR PLATOON COMMANDERS

I. TIME TABLE

Time.	Event.	Place.	Remarks.
1800 hrs. previous day	Issue opening narra- tive	Barracks	Individual work
0830 hrs.	Leave barracks	(details)	
0900 hrs.	Discuss Problem 1	On track about 658608	
0920 hrs.	Issue Narrative 2 and problem 2	do.	
— hrs.	Move to —		Stop at — and point out (e.g. covered ap- proach not s h o w n o n map).

(NOTE.—Time table would continue on these lines. It should be tested before the exercise. It is issued only to instructors.)

II. NARRATIVE 1

1. *Objects of T.E.W.T.*

- (a) To teach the principles of attack by infiltration.
- (b) To show some alternative methods of applying the principle of fire and manœuvre within the company.

Before the exercise officers and N.C.Os. should study I.T., Secs. 5, 63 (less para. 2), 67, 68 and 69, and I.S.L., Chapter IX.

2. *Opening narrative*

(NOTE.—This narrative is given in outline only. It should be amplified to give an adequate picture.)

The battalion with which we deal belongs to the reserve bde of the left division taking part in an attack against a position on which about 48 hours work has taken place. The leading bdes attack at first light to-morrow with tanks; task of our bdes is to exploit and make a gap. Our battalion is now bivouacked about 5 miles back and moves forward early next morning to an assembly area at A. At 0800 hrs. the C.O., who has gone forward with the Brigadier, sends a message ordering companies to forward rendezvous and O group to meet him atB. Your company commander tells you to read the message and bring the company along and says "I'll leave you to decide what to do about the trucks."

PROBLEM 1

(To be discussed at the first stand to-morrow)

- (a) As a platoon commander, after arrival at your bivouac last night, what action do you take?
- (b) After your company commander leaves you, what action do you take about the trucks?
- (c) Be prepared to discuss the route and method of advance of your company to its forward R.V.

(NOTE.—The main object of these questions is to ensure that all are "in the picture" at the beginning of the exercise and have studied their maps.)

Notes on Problem 1 (instructors only)

(a) Points to be brought out will include:—Checking all platoon weapons, ammunition and equipment. Study map with N.C.Os., consider landmarks, etc. (learn the country). See men are well fed, arrange haversack ration for to-morrow. See men get as much sleep as possible (enforced silence with boots off).

(b) Battalion or at least company commander should have made this decision. The question is formed to force consideration of how far forward trucks can go in battle.

(c) This question involves map reading. Route picked should be direct as possible (speed and avoidance of fatigue). Company must move dispersed with greatest use of cover. Enemy aircraft will be looking out for reserves.

(NOTE.—The notes for discussion would be fuller than those given above, which cover only a few of the points.)

NARRATIVE 2

(See DIAGRAM II)

(Issued verbally at W.)

(NOTE.—This narrative might be presented as a combination of:—A description of what the company commander would see and hear, conversation with a company commander

of the leading brigade, and orders from his C.O. The main essentials only are included below.)

Our leading brigades have penetrated the enemy position to a depth of about 3000 yards and have reached their objectives (on this front the brook R—T). They have had hard fighting and are rather disorganized and short of ammunition. They are holding the farm at S and a few posts along the brook. Retiring enemy are trying to patch up some resistance on the line L—P—N and stragglers have been seen being collected and moved into position. There are M.Gs. in the wood at L and the enemy is also holding the house at M and the copse at N. Troops of our forward brigade have already made two direct attacks down the road on M. without success.

Our battalion is attacking on a two company front (ours is the left company). The company objective is the road between C and D. The company has a battery in support and a detachment of mortars and a section of carriers under command.

You are company commander. The battery commander is with you at W. Your platoon commanders and the mortar and carrier commanders are 200 yds. behind, under cover.

PROBLEM 2.

As company commander give your orders.

Notes on Problem 2 (instructors only)

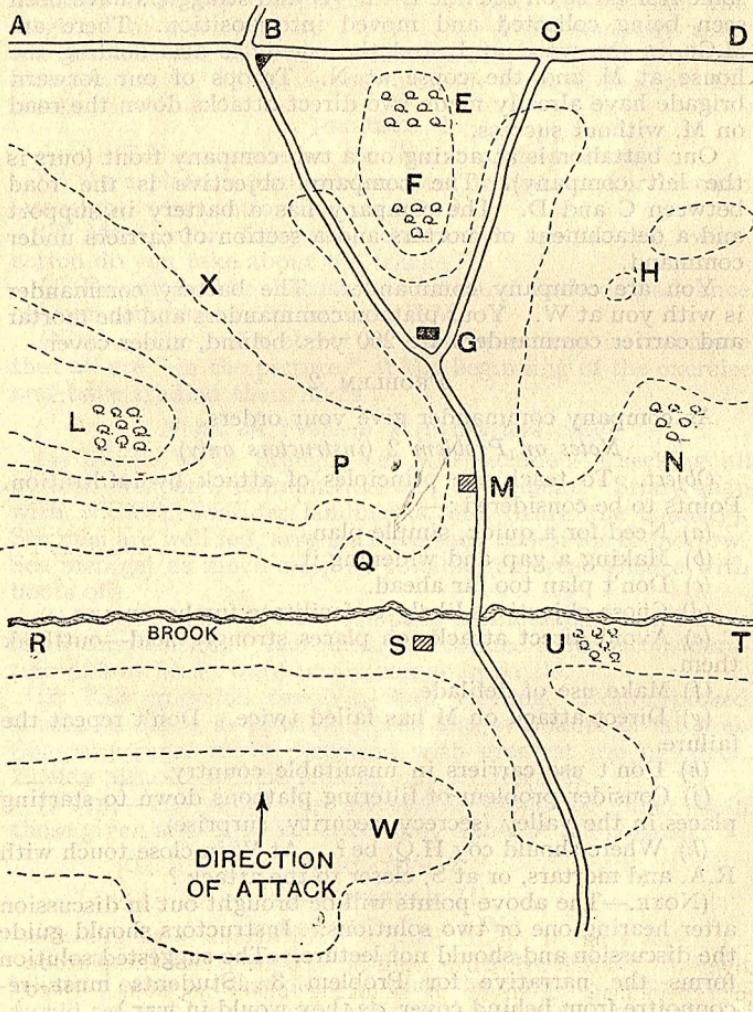
Object. To teach the principles of attack by infiltration. Points to be considered :—

- (a) Need for a quick, simple plan.
- (b) Making a gap and widening it.
- (c) Don't plan too far ahead.
- (d) Choose objectives likely to facilitate further moves.
- (e) Avoid direct attacks on places strongly held—outflank them.
- (f) Make use of defilade.
- (g) Direct attack on M has failed twice. Don't repeat the failure.
- (h) Don't use carriers in unsuitable country.
- (i) Consider problem of filtering platoons down to starting places in the valley (secrecy, security, surprise).
- (k) Where should coy H.Q. be? At W in close touch with R.A. and mortars, or at S, closer to the attack?

(NOTE.—The above points will be brought out in discussion after hearing one or two solutions. Instructors should guide the discussion and should not lecture. The suggested solution forms the narrative for Problem 3. Students must reconnoitre from behind cover, as they would in war.)

DIAGRAM II.

NOTE: The country in the valley of the brook and the slopes on either side is fairly close pasture land and orchards with hedges and walls and small fields. Beyond the ridge L—P and on the right of the road about N it is arable land with large fields and low hedges only.)



NARRATIVE 3

(Issued verbally at W)

The following are extracts from O.C. coy.'s orders :—

Immediate intention :—to make a gap at P.

11 Platoon. To capture P ; starting line (pointed out) just over brook by S ; line of attack up re-entrant Q ; cross starting line 0950 hrs. ; task, to get a view over ridge and push out a post to protect company left flank.

10 Platoon. After success by 11 platoon to capture M from flank via Q.

12 Platoon. To reserve behind wood at U.

Artillery. Concentration of smoke and H.E. on L from 0945 to 1000 hrs.

Mortars. Smoke N to cover movement down slope 0940-0945 hrs. Concentration on M. 0950 to 0955 hrs.

Carriers. In reserve at (No particular task. They will be wanted later.)

PROBLEM 3

As No. 11 platoon commander give your orders and describe exactly how you would carry out your task.

Notes on Problem 3 (instructors only)

Students should be made to get down to exact detail. What reconnaissance is carried out, from where and by whom ? How did platoon get down to starting line ? Formation for attack, etc.

Syndicates will walk up line of attack pointing out from time to time how they see their platoon disposed, at the same time instructors will paint the picture and try to reproduce a war atmosphere. The action of this platoon will be considered right through to consolidation in detail.

Quick decision exercises may be included. (e.g. One man wounded in arm, prisoner captured, forward section, consolidating, spots enemy in ditch about X ; should they fire ; ammunition situation to be considered.)

PROBLEM 4

As 11 Platoon commander write any message you would send (individual work).

FURTHER SITUATIONS (IF REQUIRED)

The following are suggestions for further situations :—

1. *Attack on M by 10 Platoon.* An attack with grenades covered by small arms fire from S. Points : Has the platoon got grenades ? Danger of bombing other sections. Need for a clear plan. Rallying after attack.

2. *Attack on G by 12 Platoon.* Enemy seen running from N to G, from where fire is opened. Enemy M.G. fire from A. Attack supported by 3-in. mortar fire on A and 2-in. mortar fire on G. Note this brings 10 Platoon into reserve (I.T., Sec. 66, 9) and method of stepping forward from objective to objective.

NOTES FOR FINAL SUMMING UP

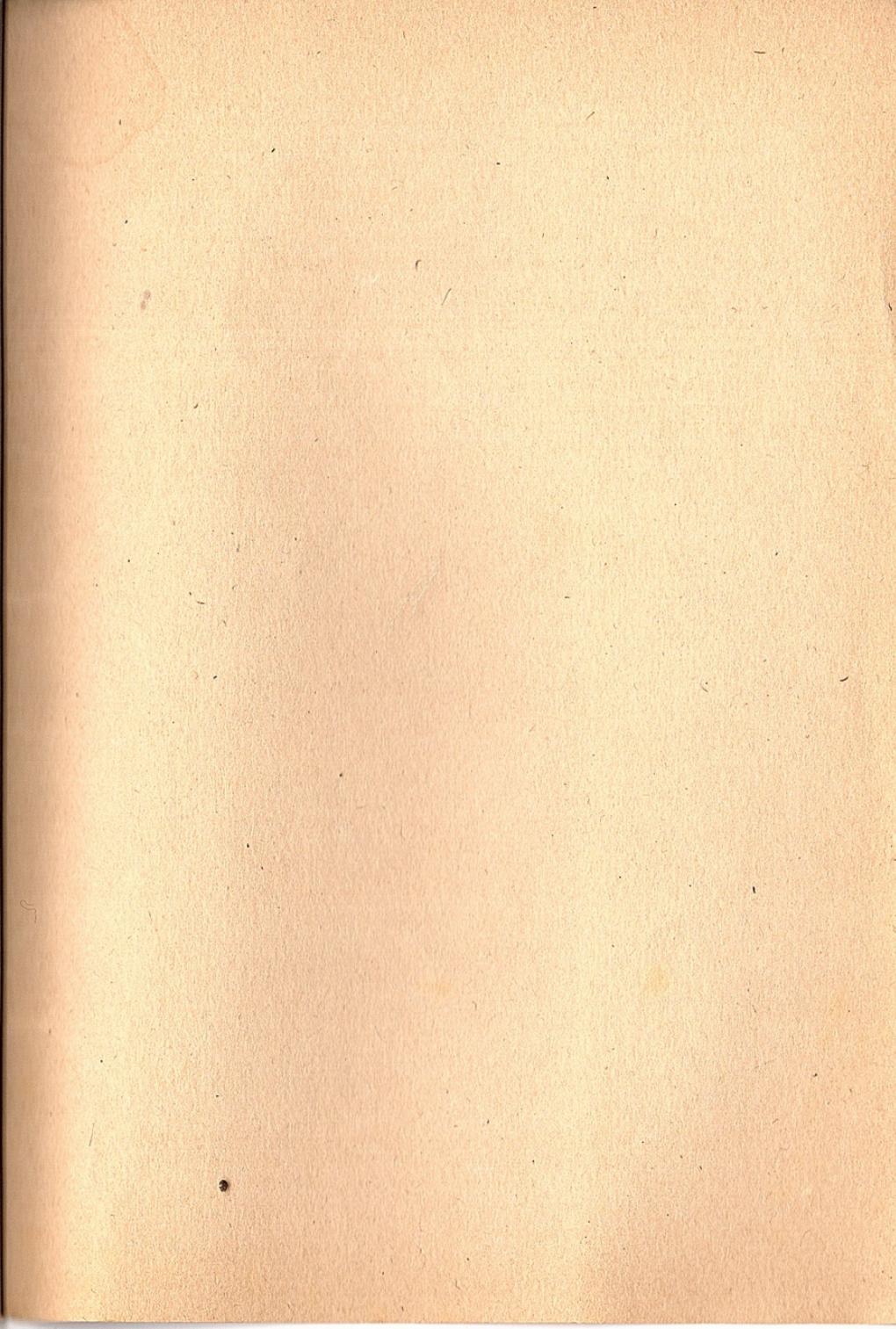
1. Refer to objects of T.E.W.T. The "stepping stone" method of advance, exploiting success and widening the gap.

2. Different methods of support used in each platoon attack. There are other combinations in application of weapons and ground. Do not become stereotyped.

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